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LECTURES
ON THE
THEORY AND PRACTICE OF MEDICINE;
NOW IN COURSE OF DELIVERY AT THE
THEATRE OF ANATOMY AND MEDICINE, WEBB-STREET, SOUTHWARK.
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&c., &c.

Table displaying the different degrees of tolerance of loss of blood. Augmented tolerance; healthy tolerance; diminished tolerance. Morbid effects of mercury. Erethismus mercurialis. Symptoms of this affection. Dr. Bateman's case. Treatment of the morbid effects of mercury. Analogy between erethismus mercurialis and the morbid effects of loss of blood. Erythema mercuriale induced by opium, arsenic, and gastric irritation.

GENTLEMEN:—In the present lecture I propose to draw my observations upon *bloodletting*, and upon the *theory of medicine* in general, to a close. It will conclude with some remarks upon the morbid effects of *mercury*, and on the state of *sinking*. It will be succeeded by lectures upon the *nervous system* and its *diseases*, to which, as you know, I have been devoting great attention for a series of years. But first, now, permit me to direct your notice to the following table, which exhibits, in a concise and distinct form, the results of my investigations on the subject of bloodletting; on passing the eye over it you cannot fail to be impressed with the value and importance of the facts it displays, with the diagnostic, the guide, the guard which it affords.

I. AUGMENTED TOLERANCE.

Represented by the mean quantity of blood which flows before incipient syncope.

a. Congestion of the brain.
1. Tendency to apoplexy.
2. Apoplexy from congestion. ℥xi—i.

b. Inflammation of the serous membranes.
1. Arachnitis;
2. Pleuritis;
3. Peritonitis;
4. Inflammation of the synovial membrane and of the fibrous textures of joints ..... ℥xxx—lx.

c. Inflammation of the parenchyma of organs.
1. Of the substance of the brain;
2. Pneumonia;
3. Hepatitis;
4. Inflammation of the mamma. ℥xxx.

d. Inflammation of the skin and mucous membranes.
1. Erysipelas;
2. Bronchitis;
3. Dysenteria ..... ℥xvi.

II. HEALTHY TOLERANCE.

This depends on the age, sex, strength, &c., and on the degree of thickness of the parietes of the heart, and is about ..... ℥xv.

III. DIMINISHED TOLERANCE.

1. Fevers and eruptive fevers ℥xii—xiv.
2. Delirium tremens and puerperal delirium ..... ℥x—xii.
3. Laceration or concussion of the brain;
4. Accidents before the establishment of inflammation;
5. Intestinal irritation .... ℥viii—x.
6. Dyspepsia; chlorosis .. ℥viii.
7. Cholera ..... ℥vi.

Having thus fully detailed the morbid and curative effects of loss of blood, I shall now, Gentlemen, make a few remarks on the state of sinking, and then give a sketch of the morbid effects of mercury.

Besides the state of sinking, induced by the loss of blood, and other direct sources of exhaustion, a state of things very similar not unfrequently occurs in the course of certain diseases. It is apt to take us by surprise; for it is sometimes very insidious, and sometimes sudden, in its mode of accession.

Mr. C——, aged forty, was affected with icterus, and reiterated attacks of pain in the region of the stomach; these attacks, together with the remedies necessary to relieve them, gradually reduced the patient to ex.

treme weakness and great emaciation. In this state he went to Leamington, and was apparently benefitted by a course of the blue pill. At this period, feeling himself better than usual, he rose early one morning, dressed himself, and went down stairs, with the intention of agreeably surprising his friends. He was overcome by the effort, however, and became faint; he was then taken with chilliness; he was removed to bed, and became slightly feverish. On the succeeding morning there was rigor, followed by great heat of skin, and a sense of tightness under the sternum. On the next day there were slighter rigor, less heat, a degree of delirium, and then constant dozing; in this state of dozing he continued for some hours, no danger having been intimated by the physician in the morning, or felt by his friends during this sleep, from which they expected to see him awake refreshed. In the evening, when the physician arrived, the pulse could scarcely be felt, and the vital functions shortly afterwards ceased altogether.

Some diseases are apt to issue, even at a rather early period, in a state of sinking; in other cases, sinking supervenes in the later stages of these diseases. This state seems sometimes to be the result of a direct influence of the disease in lowering the vital powers; sometimes the disease has subsided, but the state of sinking has continued, and destroyed the patient; and sometimes the sinking has appeared to annihilate the morbid actions which constituted the disease, and thus to prove a *cure*, though a fatal one. In the latter cases the physician, whose eye is fixed on the disease alone, and the friends of the dying patient, are apt, from the apparent truce in the actions or pains of the disease, to be led into a sanguine, but delusive, hope that the patient is better; there is, perhaps, a degree of dozing, mistaken for a long wished-for sleep, or some painful symptom has subsided, and the patient expresses himself as easier; but there are some of the appearances, or symptoms, about to be described, which will not fail to undeceive the careful observer.

This subject has been treated, in the author's peculiar style, by Hunter, in his chapter on "Dissolution." It has also been noticed by Sir Henry Halford, in his valuable paper, published in the "Transactions of the College of Physicians," vol. vi., p. 398, republished in his "Essays and Orations," and entitled, "On the Necessity of Caution in the Estimation of Symptoms in the last Stages of some Diseases."

Hunter observes, "Death, or dissolution, appears not to be going on equally fast in every vital part; for we shall have many people very near their termination, yet some vital actions shall be good, and tolerably strong; and if it is a visible action, and life depends much upon this action, the patients shall not appear to be so near their end as they really are; thus, I have seen dying people, whose pulse was full and strong as usual, on the day previous to their death, but it has sunk almost at once, and then become extremely quick, with a thrill: on such occasions it shall rise again, making a strong effort, and, after a short time, a moisture shall probably come on the skin, which shall in this state of pulse be warm; but, upon the sinking of the pulse, shall become cold and clammy; breathing shall become very imperfect, almost like short catchings, and the person shall soon die.

"It would appear in many cases, that disease has produced such weakness at last as to destroy itself; we shall even see the symptoms, or consequences of disease, get well before death.

"Even when in the state of approaching death, we often find a soft, quiet, and regular pulse, having not the least degree of irritability in it, and this when there is every other sign of approaching death; such as entire loss of appetite, no rest, hiccup, the feet cold, and partial cold, clammy sweats, &c."

Sir Henry Halford remarks, that "it often happens at the latter end of some diseases, both of an acute and a chronic nature, that appearances present themselves of a very equivocal and delusive nature, with which the issue of the malady does not correspond. This is most frequently the case when the resistance of the constitution against the influence of the disease has been long protracted, or when the struggle, though short, has been very violent. Here, a pause in nature, as it were, seems to take place; the disease 'has done its worst,' all strong action has ceased, the frame is fatigued by its efforts to sustain itself, and a general tranquillity pervades the whole system. This condition of comparative ease, the eager wishes of friends misconstrue into the commencement of recovery, and the more readily so, as the patient himself being appealed to, to confirm their anxious hopes, having lost some of his sufferings, admits, perhaps, that he is better.

"I have seen this fallacious truce in four or five instances of inflammation of the brain, particularly where the membranes which cover it have been inflamed, producing phrenzy.

"In inflammation of the bowels generally, it is so notorious, that mortification often follows a cessation of pain, that I do not think it necessary to dwell upon this form of disease with a view of cautioning physicians; but in that partial inflammation of the intestines which a strangulation of a portion of it in hernia produces, how often have I had occasion to deplore the disappointment and broken hopes of relatives, who, having been made happy by the as-

surance of the surgeon, that he had reduced the protruded bowel, and that now all would be well, in only a few hours afterwards were doomed to lament the patient's death. It is an invariable rule with me still to consider life as in jeopardy, until the intestines shall have performed their functions again, all irritation having left the stomach, and the skin remaining universally and equally warm."

The diseases in which the state of sinking is most marked are, I think, typhus, delirium tremens, pneumonia, bronchitis, enteritis, and dysentery, though many other diseases lead to this state, and especially some which consist in repeated attacks, each attack leaving the patient weaker than before, until they issue in sinking of the vital powers.

Amongst the first symptoms, coldness and lividity of the hands are frequently observed, the livid colour disappearing imperfectly on pressure; the cheeks and nose are at the same time usually cool. There are often much general and indefinable suffering, distress, and restlessness; sometimes slight dozing, at others slight delirium, and in some cases convulsion, followed by coma; the breathing is sometimes imperfect, the inspirations sudden and *catching*—a fatal symptom; and I have, in some cases, observed the *crepitus* in breathing, also a fatal symptom, of which I have spoken, for some days even before there was any other decided symptom of sinking; the voice is frequently altered and rather husky; the pulse is small and frequent, and perhaps irregular; the motions are apt to be passed involuntarily, and sometimes there is tympanitis, or retention of urine. It is usual for some distressing symptom, as delirium in phrenitis, cough in affections of the chest, and pain in those of the abdomen, to have ceased as the state of sinking has come on.

In typhus, sinking is very apt to occur in the later stages, and after undue exertion, as in getting and sitting up. Laennec observes, "in some subjects peripneumonia proves fatal before it has affected one-fourth of the lungs, a fact," he adds, "calculated, like many others, to prove that death is frequently owing more to the failure of the vital principle than to the extent of the local disease." In some diseases of the bowels this state sometimes occurs *early* in their course. In such cases it has been usual to conclude that gangrene had taken place; but, on examination, no such appearance has been observed: the sinking state is, equally with gangrene, attended by a subsidence of the abdominal pain. There is a puerperal affection of the bowels, the course of which is similar. In two instances there were very severe attacks of pain; the surface became cold and livid, the voice changed, the breathing imperfect, the pulse frequent and small, and the patients expired with all the symptoms of sinking. On examination there were no morbid appearances whatever. In one case of *suppression* of urine, the secretion was somewhat restored in the last stage, or sinking state.

In the more chronic cases leading to sinking, there are various slight efforts of reaction, as flushes and heat of skin; sometimes there is shivering, followed by heat; slight dozing, or delirium, catching, crepitus, or labour in breathing, mucous cough, cold extremities, the eye being bedimmed by a film of mucus.

Sinking is sometimes induced by undue and inappropriate depletion; at other times it is the peculiar tendency, or effect of disease. Altogether, especially in reference to the prognosis, and the reputation of the physician, I regard this subject as of peculiar interest, very imperfectly known, and still requiring the most attentive investigation. I have here only pretended to offer hints and some materials for thinking, leaving the matter for future inquiry. Remedies seem to be vain.

We now arrive, Gentlemen, at the effects of mercury. The principal morbid effect of mercury is that designated by Mr. Pearson, to whom we owe its detection, the *erethismus mercurialis*. This term must be carefully distinguished from *erythema*, which it may be thought to resemble. I must take this opportunity of referring you, on this and similar occasions, to the invaluable "Dictionary of Medical Terms," by Mr. Hoblyn. This little work should be on the table of every member of the profession, whatever his degree may be. It contains more information, in a short space, and at a trifling price, than any work I know. To this affection the late Dr. Bateman, the friend of Mr. Pearson, fell a victim, and that from the want of a prompt diagnosis. The first symptoms of this terrible affection occurred on the *ninth* day of the mercurial inunction; this was nevertheless continued to the *thirteenth*. Dr. Bateman observes, in the detail of his own case, given in the ninth volume of the "Medico-Chirurgical Transactions,"—"It is evident that the features of the malady are not sufficiently known, even to the most enlightened members of the profession; for the failure on the part of the medical advisers, in the instance about to be related, to recognise its first symptoms, and the consequent repetition of the dose of the poison, after its first commencement, had nearly proved fatal."

The detail itself is full of interest; and not the least affecting part of the story is, that, eventually, the disease did carry off this able physician.

Mr. Pearson observes—"In the course of two or three years after my appointment to the care of the *Lock Hospital*, I observed that in almost every year, one and sometimes two instances of sudden death occurred

among the patients admitted into that institution; that these accidents could not be traced to any evident cause; and that the subjects were commonly men who had nearly, and sometimes entirely, completed their mercurial course. I consulted Mr. Bromfeild and Mr. Williams upon this interesting subject, but they acknowledged themselves unable to communicate any satisfactory information; they had carefully examined the bodies of many who had died thus unexpectedly, without being able to discover any morbid appearances; and they confessed that they were equally ignorant of the cause, the mode of prevention, or the method of treating, that state of the system which immediately preceded the fatal termination.

"As the object of my inquiry was of considerable importance, I gave a constant and minute attention to the operation of mercury on the constitution in general, as well as to its effects on the disease for which it was administered; and, after some time had elapsed, I ascertained that these sinister events are to be ascribed to mercury acting as a poison on the system, quite unconnected with its agency as a remedy; and that its deleterious qualities were neither in proportion to the inflammation of the mouth, nor to the actual quantity of the mineral absorbed into the body."

The erethismus mercurialis may come on at any period of the use of mercurial remedies. In Dr. Bateman the first symptom occurred on the ninth day of mercurial inunction, with languor, fever, and, on the next morning, with violent and irregular beating of the heart.

Mr. Pearson observes—"The gradual approach of this diseased state, is commonly indicated by paleness of the countenance, a state of general inquietude, and frequent sighing; the respiration becomes more frequent, sometimes accompanied with a sense of constriction across the thorax; the pulse is small, frequent, and often intermitting, and there is a sense of fluttering about the præcordia. In this early stage, the farther progress of the mercurial erethismus may be frequently prevented, by giving the camphor mixture with large doses of volatile alkali, at the same time suspending the use of mercury." And further,—"the erethismus is characterised by great depression of strength, a sense of anxiety about the præcordia, irregular action of the heart, frequent sighing, trembling, partial or universal, a small, quick, and sometimes an intermitting pulse, occasional vomiting, a pale contracted countenance, a sense of coldness; but the tongue is seldom furred, nor are the vital or natural functions much disordered. When these, or the greater part of these symptoms are present, a sudden and violent exertion of the animal powers will sometimes prove fatal; for instance, walking hastily across the ward; rising up suddenly in the bed to take food or drink; or slightly struggling with some of their fellow patients, are among the circumstances which have commonly preceded the sudden death of those afflicted with the mercurial erethismus."

In Dr. Bateman's case it was remarked, "that the action of the heart and arteries, which was extremely feeble as well as irregular while awake, was so much more enfeebled during sleep, as to be in fact almost suspended, and thus to occasion alarming faintings and sinkings; so that it became necessary, notwithstanding the extreme drowsiness which had succeeded the long-continued watchfulness, to interrupt the sleep at the expiration of two minutes, by which time, or even sooner, the sinking of the pulse and countenance indicated the approaching languor."

"To prevent the dangerous consequences of this diseased state, the patient ought to discontinue the use of mercury; nor is this rule to be deviated from, whatever may be the stage, or extent, or violence of the venereal symptoms. The impending destruction of the patient forms an argument paramount to all others; it may not be, indeed, superfluous to add, that a perseverance in the mercurial course, under these circumstances, will seldom restrain the progress of the disease, or be productive of any advantage. The patient must be expressly directed to expose himself freely to a dry and cool air, in such a manner as shall be attended with the least fatigue. It will not be sufficient to sit in a room with the windows open; he must be taken into a garden, or a field, and live as much as possible in the open air, until the forementioned symptoms be considerably abated. The good effects of this mode of treatment, conjoined with a generous course of diet, will be soon manifested; and I have frequently seen patients so far recovered in the space of from ten to fourteen days, that they could safely resume the use of mercury; and, what may appear remarkable, they can very often employ that specific efficiently afterwards, without suffering any inconvenience."

To show how little this affection is understood, even now, I quote the following short account, which may be compared with that given by Dr. Bateman:—"Mr. ——, surgeon, and a West Indian, called upon me to hold some conversation on his own case. He attributed his unhappy condition to a malignant fever, with erysipelas, during which there had been exhibited a great deal of calomel, as much as thirty grains at one dose, which cured him; but he thought it left him subject to a gastric affection, with chronic inflammation.

"However that may be, this is his present condition: on falling asleep, just at the moment when volition and sensibility cease,

the involuntary motions also stop, with a sensation of death, under which he awakes generally convulsed.

"His medical friends have sat by him and watched him, and they have found that when sleep is overpowering him, the breathing becomes slower and weaker, the heart and pulse also fall low, and cease to beat as sleep comes on, and, after a short time, he awakes in tremor.

"This gentleman is very naturally in much apprehension that some of those attacks may terminate existence. But he is young, and I think the attack is essentially different from the case of angina pectoris. It presents to us a lively idea of what would result, were the involuntary nerves subjected to the same law with the nerves of sense and volition; for then sleep, by overpowering both, would be death."

There is great similarity between the erethismus mercurialis and the effects of loss of blood; the extreme degree of chlorosis, and disease of the heart itself; in all the peculiar effect of sleep, and the proneness to sudden dissolution, are the same.

The erethismus described by Mr. Pearson is not the only *morbid* effect of mercury. This remedy, instead of producing a kindly effect on the system and on the disease, sometimes induces a quickened pulse, with feverishness and general inquietude, a furred tongue, a harsh and intolerable feeling about the stomach and bowels, perhaps with sickness, perhaps with diarrhœa.

Each dose and every form of the medicine produces these painful and untoward effects, and we are frequently compelled to relinquish the use of our most important remedy.

In two recent instances, the first of inflammation over the caput coli, the other of inflammation of the right ovarium with ascites, the progress of the treatment was repeatedly interrupted by this unkindly action of mercurials. Their form was changed; they were omitted, and resumed repeatedly.

In other cases a single dose of the pilula hydrargyri, or of the hydrargyri submurias, induces a state of nausea and sickness, or of tormina with diarrhœa.

There is still another *morbid* effect of mercury, the *erythema*, or rather *eczema mercuriale*. This affection will be described in another part of these lectures. A *similar* rash is induced by opium, arsenic, and other substances, and by gastric irritation from various causes.

In my next lecture I commence the detail of the results of a long-continued attention to the PHYSIOLOGY, and especially the PATHOLOGY of the NERVOUS SYSTEM, one of the most interesting subjects which can occupy the scientific physician, or the practitioner. I trust that I shall be enabled to excite in you a deep interest in this important subject.

LECTURES
ON
MATERIA MEDICA AND THERAPEUTICS;
NOW IN COURSE OF DELIVERY
AT THE
WINDMILL-STREET SCHOOL OF MEDICINE.
BY
GEORGE G. SIGMOND, M.D.

GENTIANA.

THE GENTIANÆ.—*Characteristics of the family; its principal species.* GENTIANA LUTEA.—*Description of the root and its bark; preparations; doses. Gentianine; medicinal powers of gentian. The Portland gout-powder.* CHIRAYITA GENTIANA.—*Great value of this new bitter; directions for its use.*—QUASSIA EXCELSA. *Its properties and preparations. Quassine. Use of quassia in diarrhœa.*—QUASSIA SIMAROUBA. *Its intense bitterness and medical virtues. Analysis of the bark. Its use in the third stage of dysentery.*

GENTLEMEN:—The whole family of gentians have for their great characteristic a very intense bitterness, without any degree of acridity; this property resides both in the roots and in the stems. They are all quite innocuous, and some of them possess very great power on the system, which they invigorate. They are particularly grateful to the stomach, and administered alone, or properly combined with medicines which give tone and strength, they add to the inestimable treasures which are contained in the catalogue of the materia medica. It is true that their effects may neither be so striking, nor so instantaneously produced, but still they are certain and efficacious remedies in a vast number of chronic diseases. I cannot, of course, call upon you to devote as much attention to the less powerful therapeutic agents which I am now describing to you, as you are required to do to those upon whose due and proper employment life and death must depend; but you must bear in mind that owing to the vast improvements in our science acute disease does not so often come before you as it formerly did, and the necessity of early recourse to the healing powers of medicine is now so strongly impressed upon the minds of the great community that it is quite as necessary you should be familiar with the aid that you can give by the less active remedies, or those which take some time to produce their due influence, as that you should be thoroughly acquainted with the properties of arsenic, of mercury, of opium, or of hydrocyanic acid. The principal species of gentianæ are the lutea, which is most commonly

employed in this country; Chirayita, which has been recommended to us from India, and which, from considerable experience, I believe to be one of the most serviceable tonics to which you can have recourse; the rubra, highly estimated in Germany; purpurea, in Norway; catesbæia, in the United States; pneumonanthe and amarilla, in Germany; macroyphylla, which is said to be also a gentle soporific, and as such employed in Siberia; centaurium, one of the ingredients of the Portland powder, once looked upon as a specific for the gout. Altogether botanists have enumerated about sixty species of this family. They are of the class and order of Linnæus, Pentandria Monogynia, and Jussieu has placed them under an order to which he gave the name Gentianæ. They are, for the most part, herbaceous plants, and extend over the greater part of the world, and seem to inhabit both the Alpine regions, where perpetual snow exists, and also the burning sands of India and of South America; their flowers are generally of a vivid blue. The gentiana lutea has a place in our Pharmacopœia, and the root is the part destined for our use. This is brought to us from Germany, or Switzerland, in pieces of different length and thickness; they are wrinkled, twisted, externally they are covered with a brownish cuticle, they are within of a deep yellow colour, and spongy. The best that are brought into the market are tough, and have very little fibre, those that are porous are not so much prized, they are generally older. Our old English authors knew the gentian under the names of fellwort and bitterwort, and before humulus came into vogue for brewing, it was commonly employed to give bitterness to beer; and, indeed, we learn from Mr. Houghton, that even as late as the termination of the seventeenth century, it was publicly sold for this purpose. Our old English herbalist, Gerarde, tells us that Master Isaac de Laune, a learned physician, sent him plants of this sort, for the increase of his garden, from Burgundy. It seems that in many parts of the North of Europe it occupies very large tracts of country; and Haller observes that it is left altogether unnoticed by cattle. It thrives very well in this country; it luxuriates in a light loamy soil, in a shady place, and will there grow much better than in a light dry soil, or when it is much exposed. The root is perennial, is roundish, long; the stem is simple, and rises three or four feet in height; the lower leaves are upon petioles, large, spear-shaped; those of the stem are concave, ovate, sessile, of a yellowish-green colour; the flowers are large, yellow, produced in whorls; the calyx is a membranous deciduous spathe; the corolla is rotate, and divided into five or more segments; the filaments vary from five to eight, and are furnished with long erect anthers; the germen is conical, covered with two sessile reflected stigmas, becomes a capsule, divided into two valves, containing numerous small seeds.

The village of Hansen, in Germany, is the principal depôt of gentian; and it is said that the odour issuing from the root whilst drying is very deleterious; it somewhat resembles the smell of the leaves of aconite. It has been attributed to the admixture of the ranunculus thora with it; and some years since it was adulterated with this, or some other noxious root, for the worst possible effects followed upon its administration, which excited considerable attention. In some instances loss of voice, convulsions, paralysis, and blindness are said to have occurred, and even death has been produced; it was given to some dogs for the purpose of ascertaining if it were really poisonous; the consequence was they foamed at the mouth, had violent vomiting, convulsions, and loss of muscular power. Gentian gives up its virtues to water, to ether, and to alcohol. Our preparations are a tincture, the extract, and the compound infusion. The recipe for the extract is, take of gentian, sliced, two pounds and a half, boiling distilled water two gallons, macerate for twenty-four hours, then boil down to a gallon, and strain the liquor while yet hot; lastly, evaporate to a proper consistence; the dose of this is about ten grains, and a very useful medicine it is, but by no means so good, where a tonic is required, as the infusion, which is thus made:—Take of gentian, sliced, orange peel, dried, of each two drachms, lemon peel, fresh, four drachms, boiling distilled water a pint; macerate for an hour in a lightly covered vessel, and strain. This last preparation is, to use the language of the "Dispensatory," "an elegant tonic." The formula is altogether unobjectionable, and a more serviceable medicine in dyspepsia, and in states of visceral debility we do not possess. It is a clear infusion of a yellow colour, has a pleasant flavour of the orange and lemon peel, has by no means a disagreeable taste, and gives a warmth and glow to the stomach, and a slight degree of general excitement. The compound tincture of gentian was formerly called tinctura amara; it is made of gentian, sliced, two ounces and a half, of orange peel, dried, ten drachms, cardamom, bruised, five drachms, proof spirit two pints; macerate for fourteen days, and strain. Of the compound infusion an ounce or two, of the tincture, a drachm or two, may be the ordinary dose. The infusion is a very excellent vehicle for other medicines, for magnesia, for rhubarb. It may be combined with infusion of senna when the bowels require regulation; it may be united with infusion of the barks, or the woods, where the functions of the stomach are disordered. It may be given with ammonia,

with assafœtida, with the chalybeates, in various affections of the uterine system; with squills, and with the neutral salts in dropsies; but with solutions of diacetate of lead and sulphate of iron it is incompatible.

It is to a principle called gentianine, that the root owes its power. We owe to MM. Henry and Caventon our knowledge on this subject; and it is a singular fact, that both these able chemists, unknown to each other, commenced a series of experiments, and arrived at the same conclusions, without the slightest communication passing between them; and highly to their characters, as scientific men, instead of instituting claims to a priority in the discovery, and entering upon a war of words to substantiate their proceedings, they united together, and finding that they both agreed upon investigation of the facts they published them together; a remarkable fact, observes Magendie, proving two most important circumstances, the first the high perfection to which the chemical analysis of vegetable substances has now attained, for two individuals setting out from the same point, and although using different instruments of their art, arrive at conclusions perfectly similar, and satisfactory to themselves and to the public; the second, the change that has occurred in the feelings, and the spirit that guides the followers of science, for had such a contingency happened a century ago, a most terrific dispute, obstinately and probably personally carried on, would have been the result; the great object of knowledge would have been lost sight of, the examination abandoned by both parties, and only bad feelings engendered; now each individual is pleased with the investigation pursued by the other, as it confirms the views to which his own inquiries had led. Magendie has ascertained, by experiments, that gentianine is not endowed with any poisonous qualities; he has taken it himself, and has prescribed it in the forms of tincture and of syrup, which may be substituted for the tincture of gentian, and employed under similar circumstances.

Gentianine is of a yellow colour, has scarcely any smell; it has very remarkably all the fine bitter aromatic taste of gentian, and this is very strongly developed on the addition of any of the acids; it is perfectly soluble, both in ether and in alcohol, and is deposited from them by spontaneous evaporation, in the form of very small yellow crystalline needles; it renders cold water very bitter, although it is not very soluble in it; it is, however, very easy of solution in boiling water. It has not been used in this country to any extent. The gentian root has long been employed in medicine, and it appears from a passage in Pliny, that it owes its generic name to a king of Illyria, whose name was Gentius; for he first either discovered or availed himself of its uses, when an epidemic disease infected his army. In the old dispensatories we find it had obtained a high character. It deservedly, according to Quincy, stands at the head of the stomachic class, "as it wonderfully warms the stomach and excites the appetite, and also enables it the better to digest what it receives. For killing and expelling worms it is in the highest esteem, and in chirurgery it not only goes for a discutient in fomentations, but is also used in fine powder to issues to promote their running, and as a tent both to enlarge and cleanse some fistulous apertures. Some authors extol this beyond all credibility for its alexipharmic qualities, and rank it almost with the Peruvian bark in intermittents." The words of Murray, of Göttingen, are "præstantissima inter amara." In the year 1777 Hartmann wrote a treatise entitled "Historia Gentianæ Naturalis et Medica," but its virtues were more minutely inquired into when a remedy called the Portland powder acquired a high celebrity in this and other countries, for the cure of gout, a disease formerly considered "beyond the reach of the physician's skill, and, even to a proverb, termed the reproach of his art." About 1770 this powder was introduced; it was formed of equal parts of the roots of aristolochia rotunda, or birthwood, and of gentian, the tops and leaves of Germander, ground pine, and gentiana centaurium. These ingredients were directed to be well dried, powdered, and sifted as finely as possible, and well mixed together; of this powder a drachm was taken every morning fasting, in a cup of wine and water, broth or tea. This was to be continued for three months, without interruption; the dose was then to be diminished to three quarters of a drachm for three months longer, then to half a drachm for six months more, taking it regularly every morning, if possible. After the first year it was thought sufficient to take half a drachm every other day. As this medicine was said to operate insensibly, it was expected that two years would elapse before any great benefit was received, to use the language of one of its commenders, "so that you must not be discouraged though you do not perceive, at first, any great amendment; it works slow but sure; it doth not confine the patient to any particular diet, so that one lives soberly and abstains from those meats and liquors that have always been accounted in the gout pernicious, as champagne, drams, high sauces, &c." In the present day, so fond are all of quick results, and we find life so very short, that I doubt whether any one would be found to go through two years regimen, more particularly when colchicum can be administered with so much certainty and safety. According to Heberden, the Portland powder lost its reputation from

the largeness of the dose; he thought fifteen grains, twice a day, of any of the powders called bitters mixed together quite sufficient. It was stated that palsies and apoplexies very generally occurred where gout was cured by these means, and the dread of being cured of the gout was much greater than the dread of having it; and, as Heberden says, the world seems agreed patiently to submit to this tyrant, lest a worst should come in his room. In those atonic states of gout where the stomach is in a most debilitated state, bitters, and especially the gentians, are of the utmost service, mixed with camomile, with the root of Colombo, with Seville orange peel, and the herbs I have spoken of as forming part of the Portland powder. Dr. Clephane entered into a short but very interesting inquiry into the gout medicines of the ancients; his essay is to be found in the first volume of the "Medical Observations and Inquiries;" he selects various passages from Galen, from Cœlius Aurelianus, from Alexander Trallian, from Paul of Ægina, which prove that the gentian and the centaury entered into the composition of the remedies with which they were acquainted for the cure of gout.

CHIRAYITA GENTIANA; OR, WORM-SEED PLANT.

This is one of those very useful medicines which we have yet to give a place to in our Pharmacopœia, but which very richly deserves the highest encomiums. This plant is herbaceous, having lanceolate leaves, corolla rotate, four cleft, smooth, stamens four, capsule ovate, bifurcate as long as the calyx; such at least are the characters given in the Roxburgh manuscript. It is said by Dr. Fleming to be indigenous to the mountains to the westward of the Ganges. Dr. Ainslie says what appears in the bazaars of lower India, under the Tamool name *chayret toochie* are small stalks of a light gray colour, and very bitter but pleasant taste; the natives consider them as tonic, stomachic, and febrifuge, and prescribe a decoction or infusion of them, in the quantity of a small teacupful, twice daily. The specimens which I have placed before you, I owe to the kindness of Mr. Reece, by whose father it was first imported into this country, and from whom I first learnt the value of this most useful tonic, which I prefer, both from the degree of power it possesses, and for the agreeable effect it produces, to every medicine of that class with which I am acquainted. It is imported in the coarse matting in which you see it enveloped; it has been at times very scarce in the drug-market, but it is now very plentifully sent over to us. It is in long cylindrical stalks, externally of a brown colour, but whitish within, of a very peculiar bitter flavour, without much aroma, not at all austere; the smaller twigs are more intensely bitter than the larger ones. It yields up all its power to water, and a concentrated infusion may be obtained, so marked in its bitterness as to produce almost instantaneous vomiting; but two drachms in half a pint of water is quite powerful enough as a tonic. It seems that not only does it act upon the stomach, imparting to it a greater degree of vigour, so that the increase of the gastric juice is attendant upon it, and thus the first process of digestion promoted, but the secretion of the liver is materially improved by it; for I have always found that, where it has been given, the stools have speedily acquired the healthy tinge of bile, and also the muscular activity of the bowels has been increased, for the peristaltic action becomes more regular, and performed with more decided periodicity. So satisfied have I been with the chirayita, that I have never failed to recommend it to my medical friends, and I have uniformly found my own views confirmed by the experience of others. Several members of the *Medico-Botanical Society*, who were induced to employ it from the observations I made there, have spoken to me in very strong terms of its efficacy, and I have little doubt it will become a very popular medicine amongst you, when you have given it a fair trial. Its beneficial effects are generally much more permanent than the greater number of bitters; nor does it, as most of the barks, woods, and roots which we employ for dyspeptic states, and for all that host of morbid affections which depend upon disordered function of the stomach and bowels, ever constipate the bowels, or interfere with the healthy function of the liver; on the contrary, it corrects the secretion of the bile, and gently operates on the bowels. I have often recommended a tincture made of it in cases of indigestion occurring after mental fatigue, where the nervous system has acted upon the organs of assimilation, and with the greatest success. The tincture may be made by macerating five ounces of the chirayita in two pints of proof spirit for fourteen days, and straining. This contains all the powers of the herb; it forms a very strong but very pleasant bitter, by no means unpalatable; it is grateful to the stomach, and diffuses throughout the system a genial warmth. A teaspoonful may be taken two or three times in the course of the day, in a glass of water, or in an ounce of the compound infusion of gentian, in the infusion of hops, in an infusion of camomile, or in that of cloves. In this state, however, it seldom acts upon the bowels, or produces those copious bilious evacuations which occur where the infusion has been used.

I have often found chirayita very much to be preferred to sarsaparilla when large quantities of mercury have been taken, and often, after salivation has been produced, the system more quickly recovers its lost equilibrium than from the use of any other

drug with which I am acquainted. It has likewise been very strongly recommended in leucorrhœa, dependent upon a general relaxed condition of the female frame; it has even been called a specific remedy. At that period of life in which the menstrual secretion is about to disappear, and in which there is great carefulness to be remembered, lest the employment of medicines injudiciously may lay the foundation for disease in the uterus or in the mammæ, this tonic is very effectual, it produces no determination to any of the organs, but combines the power of invigorating, with that of removing obstructions. I have thus spoken of a remedy from which I have derived the greatest advantages, and which I, therefore, can strongly recommend to you, begging you at the same time to bear in mind that it is not to be indiscriminately given; for, although I know of no bad effects which have been the result of its administration, still it is evidently a very powerful agent, and the Hindoos, with whom it has been long a favourite, always inculcate the necessity of caution. The morbid condition of the stomach in which it is most serviceable, is that marked by flatulence, heartburn, sluggishness of the bowels, great nervousness, want of sleep, general uneasiness, and where an indication of the disordered secretions becomes known to us by the sordes on the tongue, the high colour of the urine, and the altered colour of the fæces; where, however, the nervous system is so much disordered that the circulation has become more rapid, it has not such marked good effects, nor can it be given until due precaution has been taken completely to unload the bowels, and to diminish the tendency to excitement; and you should therefore abstain from prescribing it where there is flushed face, throbbing of the carotid arteries, sensation of burning in the palms of the hands, in the soles of the feet; should there be any confusion of mind, or unwonted state of sensation, through the usual channels, you should be cautious. Nor are these indications ever to be passed by when tonics appear to be required, for they foretel much mischief, and there is much attention demanded in these instances amongst the class of nervous and dyspeptic patients, amongst whom, in a large city, a full share of your practice may fall, where so many causes of mental and bodily depression exist. There is amongst some of the foreign dispensatories, under the name of gentianella, a very agreeable bitter; it is the dwarf autumnal gentian, the gentiana amarella; it is a favourite amongst many foreigners, and it possesses some marked characteristics; I do not, however, think it has many claims to our consideration.

QUASSIA EXCELSA—ASH-LEAVED QUASSIA.

The wood of the tree known in the West Indies by the name of bitter-wood, or bitter-ash, has been, since the discovery of the New World, introduced into practice as a useful tonic, and as a powerful bitter, and these are its chief characteristics; it is deficient in aroma, nor has it any of that grateful flavour which belongs to the greater number of this class of useful agents. It is a cheap substitute for some of the more agreeable bitters, and it is occasionally found amongst the unfortunate class of persons who have been addicted to dram drinking, more efficacious than the more delicate tonics. Some of the hospital and dispensary patients prefer it to any other, and seem to derive very considerable benefit from persevering in its use, where the natural tone and vigour of the stomach have been much impaired by the destructive agency of ardent spirits. It cannot, however, be taken by those who are in possession of the due functions of the stomach, without feeling a degree of nausea, which becomes insupportable if a large quantity is swallowed.

This tree grows in Jamaica, and in the Carribean Islands; and to a surgeon resident in Jamaica, Mr. Lindsey, we are indebted for an accurate description; it is to be found in the third volume of the "Transactions of the Royal Society of Edinburgh." It is said to have derived its name from a negro named Quassi, or Coissi, who is said to have employed either this species, or the one grown at Surinam, the quassia amara, with very great success in the cure of an endemic fever; for a valuable consideration this secret was sold to Daniel Rolander, a Swede, who took the wood with him to Stockholm, in the year 1756. The governor, Dalberg, also assisted in promoting its importation into Europe, and Linnæus, in the "Amenitates Academicæ," made it known to Europe. It was, however, the quassia amara which was at first officinal, but, as it is exceedingly rare, and of small bulk, the quassia excelsa was substituted for it for medicinal purposes; and Wildenow, speaking of the species of Surinam, observes, "Quassia amara est planta rarissima, lignum amaritie palmam præripit. Lignum quassiæ venale non ex hoc fructe venit, colligitur a quassia excelsa quæ, minus amara."

The quassia excelsa is a fine, handsome, tall, and stately tree, growing frequently to the height of a hundred feet, and sometimes ten feet in circumference; its trunk is straight, and sends forth a great number of branches towards the top; it is covered with a smooth gray-coloured bark; its wood is of a pale yellowish colour. The leaves are pinnate, and composed of from four to eight entire leaflets, from three to five inches in length, on short footstalks, with terminal leaflets. The flowers are in clusters, or in panicles, bearing numerous small, yellowish, green-coloured flowers, some male, the rest hermaphrodite, in the same cluster. The male flowers approach very nearly to

the hermaphrodite, except that they only have the rudiments of a style. The calyx is very small, with five equal segments; the corolla is formed of five equal lanceolate petals, shorter than the filaments, which are generally five, a little longer than the petals, downy, and supporting roundish anthers. The germen is ovate, with a slender style and trifid stigma; the fruit is a small black drupe, round, smooth, and the size of a pea; these drupæ are usually three, sometimes two, at others only one, attached sideways to a round fleshy receptacle. It flowers in the months of October and November, and the fruit ripens about the end of December. The wood which is the part officinally used, comes over to us in large billets, and these are reduced into raspings or shavings by the druggist; these shavings are of a pale yellow colour, are of intense bitterness, have no aroma or odour of any kind. All the bitterness, and with it, the medical properties, are very quickly taken up by water; and the formula for the infusion of quassia is thus to be made:—Take of sliced quassia two scruples, boiling distilled water a pint, macerate for two hours in a vessel lightly covered, and strain. As very few substances produce much alteration upon this infusion, it may be combined with the greater number of salts; the preparations of iron do not affect it; the nitrate of silver, however, causes a soft flaky yellow precipitate, and the acetate of lead a copious white precipitate. It is generally necessary to prescribe something in union with it, such as the compound infusion of orange peel, the infusion of camomile, and a few drops of sulphuric acid, which generally render it much more agreeable to the stomach, and likewise seem very much to influence its good effects. Alcohol, likewise, takes up its bitterness, and of this both the Edinburgh and Dublin Colleges availed themselves for the preparation of a tincture, but I am not aware of any advantages which it possesses, the infusion answering all the purposes. In powder it can scarcely be given, as it cannot easily be reduced to that form, and the raspings are somewhat tough and indigestible; I have, however, known it chewed for an hour or two before dinner in a very wretched dyspeptic case, with something like advantage; it alone could give an appetite for food.

Professor Thompson, of Glasgow, has obtained from the quassia an intensely bitter principle, of a brownish-yellow colour, which is very soluble in water and in alcohol, which he considers to be quassia in the state of the greatest purity. He has attached to this substance the name of quassine. I must not very long detain you upon a medicine which, although it doubtless possesses some very useful powers, is far inferior to many of the vast list which I have yet to open to you; I should, however, recommend you to read the observations of Murray, of Gottingen, with whom I should imagine quassia must have been a favourite remedy, from his expatiating on the history of its introduction, and from the importance which he appears to attach to every circumstance connected with it. There is little doubt, in the bilious fevers of hot climates, it has proved eminently successful. Gibson and Lettsom have pronounced it serviceable in these diseases. It has obtained a reputation abroad in hysteria, in gout, and in periodic headachs. Its most striking characteristic is its power of retarding the progress of putrefaction; a small quantity of infusion will, if added to meat, prevent its speedily losing its odour and natural appearance, and hence it has been classed amongst the antiseptics; this does not seem to depend upon its bitterness, for other bitters have but little of this power. In diarrhœa, dependant upon a laxity of the muscular fibre of the intestines, it has also been very highly lauded, and its bitterness has led to its use as an anthelmintic. This drug has been often added to beer to give the bitterness which belongs to the hop, but it is very prejudicial, and beer thus formed is very apt to affect the bowels, and it wants altogether the fine flavour and agreeable aromatic odour which is obtained from the hop.

QUASSIA SIMAROUBA, OR WING-LEAVED QUASSIA

Belongs, as does the quassia, to the Linnæan class and order Decandria Monogynia, and to the Magnoliæ of Jussieu; but De Candolle has formed them into an order which he has called Simaroubæ, taking this as the type of the tribe. All these are natives, with one exception, of tropical America or Africa, and they are marked by one distinguishing characteristic,—their most extraordinary and intense bitterness: this pervades all of them so much so that no insect will attack the simarouba versicolor of St. Hilaire. Specimens of it were placed among the dried plants, these were the only ones that escaped destruction from the incursions of a devouring larva of a species of ptinus; it is likewise used to destroy the vermin that infest the hair. The wood of these plants too, is unfit for burning during cookery, for the atmosphere becomes impregnated by its smoke; and, according to Labat, the food then prepared becomes altogether unpalatable.

The quassia simarouba is known in the island of Jamaica, of which it is a native, as well as of various other of the West India islands, and of South America, under the name of the mountain damson, the bitter damson, and stave wood. About the year 1713, the simarouba was introduced into Paris from Cayenne, as a cure for dysentery, but was forgotten until an epidemic of a very severe character occurred a few years after, when it was found a very useful remedy.

Antoine Jussieu bestowed very great attention on its efficacy, and gave the result of his labours in the Memoirs of the Academy; he seems to believe that the macer of Dioscorides, the macer of Pliny, of Galen, and of the Arabians, was the simarouba; his inquiries led other distinguished men to examine it; and although they differed with him as to its identity, yet they all acknowledged that their experience of this remedy was most favourable in the cure of dysentery. The medical character of this drug became very soon firmly established throughout Europe, and Dr. Wright called the attention of the English practitioners to this remedy, which, in the stage of dysentery in which there is no fever, and where the tormina and tenesmus are only continued in consequence of the debility of the bowels, is invaluable.

It is the root of this tree which furnishes the bark, and it is brought to us in pieces of various size, which are rolled or curled inwards, they are of a very fibrous texture, rough, scaly, warty, marked with prominent transverse furrows, they have no odour, and are intensely bitter; they yield up all their active principles to water. The infusion of simarouba is made by macerating for two hours in a vessel, lightly covered, three drachms of bruised simarouba in a pint of boiling distilled water, of this an ounce and a half to two ounces is given. It is rarely employed in substance; although Dr. Cullen says he cannot perceive anything in this bark but that of a simple bitter, and that he found an infusion of chamomile flowers a more useful remedy, yet Dr. Monro, Sir John Pringle, and Saunders prescribed it in old and obstinate dysenteries and diarrhœas, and especially those that were brought from a warm climate. Dr. Lind gave it a trial at *Haslar Hospital*, and found it useful when given in such quantities as to nauseate the stomach. According to an analysis made by Morin, it contains a resinous matter, volatile oil having the odour of benzoin, acetate of potash, an ammoniacal salt, malic acid, and traces of gallic acid, quassine, malate and oxalate of lime, some mineral salts, oxide of iron and silex, ulmine and woody matter. It is upon the quassine which I mentioned to you had been obtained by Dr. Thompson, that the bitterness of the drug depends. Dr. Palmieri has tried the quassine with some success in intermittent fevers, and he says that it should be exhibited in double the ordinary dose of sulphate of quinine. The simarouba has obtained a character for checking uterine hæmorrhages, and likewise for leucorrhœa, but this has been founded on solitary instances. It, of course, may be tried when other remedies fail, and the more resources we possess in the healing art, the more satisfied shall we feel when disease presents itself; nor are we to leave out of our Pharmacopœia any remedy because its usefulness is limited; if in any one stage of a disease it may be found to produce a good effect, we must retain it; and certainly, though the quassia simarouba may only in the third stage of dysentery be universally recognised as worthy our attention, still it is well for you to be aware of your possessing this agent on which you can rely.

MR. SQUIRE ON THE EXISTENCE OF CARBONIC ACID IN VENOUS BLOOD.

To the Editor of THE LANCET.

SIR:—In the beginning of the year 1835 I assisted Dr. Stevens in some experiments, the object of which was to ascertain whether carbonic acid exists in venous blood. An account of these experiments was read at the *Royal Society*, and published in the second part of the "Philosophical Transactions" of the same year. I am now induced to direct the attention of your readers to this subject, in consequence of a late writer having attempted to throw a degree of discredit on these experiments.

At page 330, in the translation of Professor Müller's work on Physiology, he refers to our experiments, stating, that "although no carbonic acid can be extracted from the blood by mere exposure to a vacuum, or heat, yet carbonic acid is evolved when the blood is agitated with another gas, for instance, hydrogen." Again, he says,—"The manner in which their experiments seem to have been performed renders them of little value, for, unless the hydrogen has been previously transmitted several times through solutions of potash and lime-water, it will itself yield carbonic acid." To this statement I beg to reply,—

First,—That the experiments were made with care, that the hydrogen was purified, and examined before it was used, and that the experiment alluded to in the above paragraph, was several times repeated with the same result. On one occasion Dr. Prout was present, and on another it was performed in the presence of Professor Brande. These gentlemen will be admitted to be competent judges, and both of them expressed themselves perfectly satisfied with the accuracy of the experiments. I am well aware that Dr. Mitchell, and some others, did not, by a similar method, obtain carbonic acid from venous blood, the reason of which has been satisfactorily pointed out in Dr. Stevens's paper. The fact is, that although oxygen almost instantaneously abstracts carbonic acid, yet the action of hydrogen is much slower; and if the air-pump is used immediately, before the hydrogen has had time to act upon the blood,

no carbonic acid will be obtained, but when the blood and the hydrogen are agitated together, and allowed to remain in contact for twenty or thirty minutes, the quantity of carbonic acid found in the hydrogen is very considerable, and as there is no other source from which the carbonic acid could come, except from the venous blood, it is evident that venous blood contains carbonic acid before it reaches the pulmonary organs.

Professor Müller further states, that "Dr. Stevens has recently advanced a new theory of the respiratory process, which, at first view, appears ingenious. According to Stevens, the colouring matter of the blood is itself dark, but is rendered scarlet by the salts of the serum. The natural colour of the blood, therefore, as long as it is in contact with serum, is bright red, or scarlet; but if the coagulum of blood is dipped in water, the red colour becomes dark, on account of the serum, with its salts, being washed out of the coagulum by the water, (according to my observations, this change of colour takes place even when the quantity of water is small, and is the effect of the solution of the colouring matter by the water). The blood, naturally of a bright colour, is rendered dark by carbonic acid. Stevens says this acid is formed in the capillaries; hence the dark colour of venous blood; it is excreted in the lungs, and the natural bright red colour of the blood is thus restored, the oxygen having no share in producing the changes of colour. So far this theory sounds very simple and intelligible. To avoid the objection, that the alkali of the blood would combine with the carbonic acid, Stevens assumes that the alkali of the blood is in the state of subcarbonate, which acts on vegetable colours like the pure alkali, and may, therefore, account for the alkaline property of the serum. If Stevens's theory was correct, venous blood ought to evolve carbonic acid, and assume the arterial hue under the air-pump, and also when exposed to heat. This, however, as we have already seen, does not take place; the dark colour of venous blood, consequently, cannot be dependent on carbonic acid loosely combined with, and easily separable from it; in a word, Stevens's theory cannot be correct."—*Translation*, p. 336.

It appears from the above paragraph, that Professor Müller attributes the darkening of the colouring matter to its solution in distilled water; in answer to this it may be observed, that the same effect is produced when no distilled water is employed. Dr. Stevens found that when a thin slice of coagulum was cut out from recently coagulated blood, it was as red in the centre as it was on the surface; when, however, this slice of coagulum was suspended by a thread in the air, in proportion as the serum dropped out of it, it became darker; and, when the whole of the serum had escaped, the colouring matter of the coagulum was perfectly black; the darkening of the blood in this instance could not be the effect of the solution. It is well known that serum consists of water, albumen, and salts; neither water nor albumen have any power in reddening the blood, for, if the black coagulum be immersed in distilled water, or in a solution of albumen, it remains as black as before; but if it be removed from these fluids, and then immersed in an equally clear saline solution, the colour instantly changes from black to a bright arterial tint. From these facts it is clear, that the natural salts of the blood are the true cause of its red colour, and if these be removed the blood becomes black, independently of any solvent power of distilled water. Professor Müller makes Dr. Stevens say that carbonic acid "is excreted in the lungs." This statement is not correct; on the contrary, Dr. Stevens was, I believe, the first* who proved, by actual experiment, that oxygen possesses the property of attracting, or abstracting, carbonic acid, through the medium of membranes much denser than that which is interposed betwixt the blood and the air in the pulmonary cells: it is the discovery of this fact which has thrown so much light upon the theory of respiration. According to this theory, the carbonic acid is attracted from the venous blood, by the oxygen of the air, and not *excreted*, as stated by Professor Müller.

It is also stated by Professor Müller that, according to Dr. Stevens, oxygen, that is, the addition of oxygen, has no share in changing the colour of venous blood. Perhaps the best way of answering this assertion is to give the following extract from Dr. Stevens' paper, read before the *Royal Society*, page 352:—"When we obtain *hæmatosine*, or the colouring matter of the blood, in a pure state, it is black; but a solution of any neutral salt possesses the peculiar property of striking a beautiful scarlet, or arterial colour with it. When we make an incision into a clot of blood which has just coagulated, we find that the clot is then all equally red; when we cut out a thin slice of this red clot, and immerse it in distilled water, the salt serum oozes into the water; in proportion as this takes place the clot becomes darker, and, when the whole of the serum is removed, perfectly black. When in this state, neither atmospheric air, nor even pure oxygen, is capable of changing its colour; but, when we immerse this black clot in a clear saline solution, it instantly changes from jet black to a scarlet, or arterial colour. From these facts we may conclude that oxygen is a secondary agent in the change of colour from venous to arterial, and that, if the scarlet colour of the blood be essential to life, it is produced, not by oxygen, but by another cause. The mere

* Vide Stevens on Blood, page 114.

removal of the carbonic acid from venous blood would not produce any change of colour, were it not that there is in the blood itself another agent, which produces the arterial tint the moment that the blackening effect of the carbonic acid is removed. This is effected by the action of the natural saline ingredients of the blood on the colouring matter. When oxygen is added to blood it may have a slight share in brightening the colour; but it can only perfectly effect this when the colouring matter is in contact with a saline fluid. Oxygen is so far from being the sole cause of the arterial colour, that even pure oxygen is of itself inert as a colouring agent, whilst a saline fluid changes the colour of the blood from venous to arterial, even in an atmosphere of carbonic acid." From the above facts it must be evident that if oxygen has any effect in changing the colour of the blood, it can only do so by producing some change when the salts are present, for when they are absent it has no such power.

I come now to notice the main objections made by Professor Müller. He states, that if "Dr. Stevens's theory is correct, venous blood ought to evolve carbonic acid, and assume the arterial hue under the air-pump." The experiments made by Dr. Stevens and myself, and published in the "Philosophical Transactions," prove that this objection is of no value, for they show that blood not only readily absorbs carbonic acid, but that it retains it so firmly that it does not escape under the exhausted receiver of the air-pump. In one experiment in which venous blood was thus largely impregnated with carbonic acid, none was evolved from it by the action of the air-pump.

Professor Müller has himself repeated this experiment with a similar result. Is it not obvious, then, from these experiments, that the air-pump *has not* the power of removing carbonic acid from the venous blood; consequently, therefore, if the cause of the darkness, or, in other words, if the carbonic acid be not removed, the blood must remain as dark as ever. Professor Müller states, that the dark colour of venous blood consequently cannot be dependant on carbonic acid loosely combined with, and easily separable from it. In answer to this, I beg leave to observe, that Dr. Stevens does not maintain that carbonic acid is loosely combined with, and easily separable from, venous blood? on the contrary, it was found in our experiments, that carbonic acid was so intimately combined with venous blood, that it could not be removed by the force of the air-pump, and requires the agency of oxygen, hydrogen, or some other agent acting with greater force. The Professor next asserts, that the blood ought to evolve carbonic acid, and assume the arterial hue when exposed to heat. With respect to this objection, it may be proper to observe, that the nature of the colouring matter is extremely delicate; for example, it is blackened by all acids, and many of the gases are detrimental to it; but, of all the agents, heat is the most destructive to the red colour. If a vial of arterial blood be immersed, even for a minute, in boiling water, the red colour disappears, or if it be exposed to heat sufficient to expel the carbonic acid from so dense a fluid as the blood, the colouring matter is decomposed, and becomes perfectly black. Now, if the agent which is used to expel the carbonic acid, be of itself destructive to the red colour, how, under such circumstances, can an arterial hue be expected?

This paragraph being disposed of, I turn to page 331 of the translation, where the Professor makes some further objections to Dr. Stevens's views. He says, that if Dr. Stevens's theory be correct, venous blood ought to become arterial when exposed to hydrogen; in answer to this objection, it may be observed, that hydrogen is a blackening agent, and, though it removes the carbonic acid, yet when the hydrogen itself mixes with the blood, it blackens it, and hence the reddening effect which would otherwise have taken place is preserved.

In the same paragraph he adds, "Without denying the necessity of the salts to the production of the arterial colour, it must, however, be confessed, that when oxygen acts on the red particles of the blood surrounded by the saline serum, it gives rise to a brighter colour, without the proportion of the saline matter in the blood being altered." It is very true that the quantity of salt is exactly the same, both before and after the exposure to the oxygen, but before that exposure the venous blood contained carbonic acid, which is well known to possess the property of giving a venous colour to arterial blood, and as oxygen possesses the property of removing the acid, it is obvious that, on removing the cause of the darkness, the colour must brighten, although the quantity of salt remain the same, the salt acting upon the colouring matter without the interference of the acid, which sufficiently explains the difference of colour being produced, though the quantity of salt may be exactly the same.

There may be points of minor importance in Dr. Stevens's theory that may require to be modified, but in the great outline I am perfectly satisfied from the experiments I have witnessed, that it comes nearer to the truth than any other that has yet been advanced; at all events, its value has not been lessened by either the suppositions or the experiments of Professor Müller. I am, Sir, your obedient servant,

P. Squire.

20, Duke-street, Grosvenor-square,
Jan. 9, 1838.

GROSS MALAPRAXIS AND IGNORANCE OF A QUACK.

PUBLIC INSTRUCTION AS A REMEDY AGAINST QUACKERY.

To the Editor of THE LANCET.

SIR :—Since writing the short communication inserted in your Journal of January 6th, I have had my attention most forcibly called to the malapraxis of an ignorant quack and imposter, resident in the neighbourhood of Halifax, who has assumed the name of surgeon, and has, for many years, practised on the strength of having been, at a former part of his life, a "hospital corporal." This individual, commonly termed, by the poorer classes in his district, "DR. SMITH," visits patients, prescribes, sends medicine, and, in fact, acts just the same as if he was a regular practitioner (with the exception, we will hope, of the skill displayed in the treatment), though he is a low, uneducated, drunken fellow.

I had often heard of him, and had been informed of the havoc which he had made amongst the sick folk in his neighbourhood. One case, in particular, mentioned to me by a brother practitioner, when collecting evidence illustrative of the bad effects of quacks and druggists prescribing for disease, had made a deep impression on my mind, for it was no less than a case of mortification of some of the abdominal viscera, produced by his cutting a great gash into a poor woman's abdomen, for a supposed case of dropsy; the consequence was the most agonising suffering and death; but I myself had never come in contact with him, with the exception of his once engaging me to attend his wife in labour (for this part of our profession, it appeared, he did not undertake, at least as regarded those connected with himself), until Saturday, Dec. 30, 1837, when he called at my residence in Halifax (for I have, since that time, commenced practising in Leeds), to request me to visit, on the following day, a child who lived two or three miles in the country, whom it appeared from questions I put to him, had been severely burnt about eight days before, and was now so ill that he, as well as the parents, had become alarmed, and wished for other advice. He, however, informed me that the wounds consequent on the burn were doing *as well as possible*, but that the child's general health appeared to suffer (no wonder); he therefore wished me to see it. At the time, I suspected that the case was doing anything but well, and that all he wanted by calling me in was to remove the responsibility from off his own shoulders, in case death ensued. Indeed, in the course of our conversation, I told him as much, and he indirectly let out that if once I saw the child he was not answerable should an unfavourable event happen. He also had the impudence to tell me of several cases of dropsy, &c., which he had cured when very experienced practitioners had given them up; and when I told him that, sooner or later, he would be sure to get into some scrape, and be punished, he coolly informed me, that *he knew the law on these matters*, and had often heard it when before a coroner's inquest. I, little thought, at the time, that I was so soon to appear as the medical witness, on the nature of whose evidence his liberty, if not his life, would depend. But to proceed with my story.

In the afternoon of the following day (Sunday), he wished me to visit the patient, and he was to meet me, as I thought it would be advisable to question him on the spot, as to the treatment and the condition of the child, &c., previous to my visit. I was there at the time, but no "Dr. Smith" arrived, though he had been in the morning, and done nothing, saying that another doctor was coming. I found the poor child in a horrible state; so filthy and stinking that the odour of the apartment was almost insufferable; at first I doubted what to do, as I saw the child could not live long, but, as it did live, I thought it advisable to remove a part of the dressing, in order to make it rather more decent and cleanly, and also to see the state of the wounds during life; but before doing so I told its mother, and those in the room, that there was no chance of its surviving, but that, whilst it did live, we were not warranted in allowing it to remain in such a state. During the operation of the dressing, however, which was done most carefully, a small surface of the wounds being only exposed at a time, the child sunk, and there was an end of the business. I, however, had seen sufficient to ascertain that the wounds were doing *anything but well*, as had been represented to me, but were, on the contrary, in a most fearful state, and, no doubt, rendered worse by the treatment that had been pursued; for, instead of poulticing the sloughs, Smith had been applying irritating ointment. Of course, I told the parents that their child had been most shamefully neglected and mistreated, and that they were much to blame for sending for an ignorant man, who manifestly knew nothing about medicine, though he might pretend to set bones, heal sores, &c.; at the same time I informed them, that though its *life* might not, probably, have been saved under *any* treatment, however judicious, still its sufferings had been aggravated, and every chance of its recovery destroyed, by the treatment pursued; for nothing had been done to relieve the pain, to procure sleep, to support the vital powers, to remove the fœtid odours, &c.

An inquest was, of course, held, and I was summoned to give evidence, and as

only one week had elapsed since this self-same "DR. SMITH" had been required to appear before the coroner on account of the death of another child from a burn, which he had attended, the case caused considerable excitement in the vicinity of the interested parties. A detailed account of the investigation, and of the evidence, it is unnecessary here to recapitulate, saving that, as regarded mine, I stated, after giving an account of the whole affair, as far as I was concerned, and also of the condition of the child when seen, &c., that the treatment pursued by Smith had been, in a great degree improper, both as regarded the local applications and the means employed to relieve the sufferings and improve the general health of the poor little patient; but though, generally speaking, it had been inefficient and improper every now and then, the treatment as regarded the wounds had not been amiss (this I was enabled to ascertain from the account previously given to me by the mother); *ex. gr.*, sometimes he poulticed for a day, sometimes he applied ointment with turpentine, sometimes oil, but in such an irregular and uncertain manner that he plainly showed he did not understand what he was about. I also stated, which, fortunately for him, saved him being committed for manslaughter, that the extent and nature of the burn were such as I conceived might cause death, and that I was not, therefore, warranted in stating that the mistreatment had killed the child.

It was thought advisable, during the investigation, to ascertain what "DR. SMITH'S" qualifications, as regarded the practice of medicine, really were; I therefore, at the request of the coroner, and foreman of the jury, put a series of questions to him, as it was thought this would be a good plan of rendering his ignorance as public as possible, and would surely convince his poor deluded neighbours of the folly, if not sin, of employing such an incompetent, ignorant, imposter. The examination did, indeed, display his ignorance, for such answers I received to my questions, as I could not have believed it possible for a man endowed with the most ordinary common sense, could have given. One or two answers, out of a number which were equally ridiculous, will serve to amuse your readers, and more than that, I trust, to prove to the public what sort of individuals they are liable to be imposed upon by.

After several questions had been put to him about burns, their treatment, &c., and what he meant by the term taking the fire out, I asked him how his applications acted to take the fire out in 20 minutes (in which time, he said, it never failed to do so)?

His answer was, after much hesitation, this, or as nearly as I can recollect, "*It went to the bottom; it met with the vessels; it came to the top; it took the fire out!*"

Amongst other questions which I put to him, was, "Is exposure to the atmosphere good for burns?"

"Why, you see, when the burn happened, the air was frost, and then damp, so I covered it up."

"Is the application of cotton-wool proper in burns?"

After much hesitation, he said, "No."

"Is it never advantageous?"

"Never."

After many such answers, I asked him some questions about the means which he had employed to allay the fever, to relieve the pain, to remove the stench, &c., and I found that he had done nothing whatever. Whilst speaking about the child's general health, I asked him,

"*What is constitutional treatment, or what do you mean by constitutional treatment?*"

Ans. "*Arrow-root, gruel!*"

After this sapient response, I had finished, and high time it was, I should imagine your readers will think.

After much animadversion and reproof, both from the coroner and the foreman, on the parents for sending for such a man, the jury brought in a verdict of "Accidental death," as my evidence could not justify any other, and the learned doctor then, who, by-the-by, looked in a great funk all the time, as he had good occasion, received a most severe and just reprimand from the coroner, this being the second under similar circumstances in the course of eight days.

What an admirable state of things! What exquisite medical laws do we possess! What an efficient Company of "Worshipful Apothecaries!"

One good effect resulted from the above investigation, viz., that the jurors (a set of shrewd, respectable men), all of them Smith's neighbours, were so indignant at his barefaced ignorance, that they resolved to call a town's meeting, in order to warn persons against employing such a fellow.

This case, amongst many others which are constantly occurring, most strikingly proves how easily the people in this country are imposed upon by quacks and ignorant individuals. I entirely concur with you in your editorial remarks in THE LANCET for Jan. 6, that ignorance is the root of the evil, and that until the people are more enlightened, and education is more general, legal measures to put down the evils and abuses, such as I have been narrating, are comparatively inefficacious; still that is no reason why our interests, and that of the community generally, should suffer and be left unprotected from *want of proper laws* to regulate the practice of medicine in all its branches; for, had we such laws, the evils would be greatly *alleviated*, if not removed. You justly say, "Remove ignorance from the people, and mysticism from the practice of medicine, and the quack's avocation will

soon be gone;" and "that as knowledge progresses, as the people become more familiar with the operations of physical agents, more accustomed to observe and trace the connection between cause and effect, the power of the quack must diminish," and that medical men "must seize every opportunity of rendering facts and principles connected with the science of medicine approachable by, and comprehensible to, the public." In accordance with these views, it is here gratifying for me to state, that, during my short career, I have given two courses of public lectures, for the benefit of public institutions, on subjects connected with physiology and the science of medicine, both of which were well attended, especially my last course on Hygiene and the Philosophy of Health, thus showing that the public mind is alive to the interest and importance of such studies. It is only just, perhaps, that I should state, that I was, in a great measure, induced to choose the latter subject, for a course of popular lectures, from the strong recommendations and suggestions contained in a very able review on several works on Hygiene, &c., in one of the early numbers of the "British and Foreign Medical Review," and from knowing the great interest that was taken in a course of lectures on "The Means of Preserving Health," delivered by the philanthropic and talented Dr. Hodgkin, to the members of the *Spitalfields Mechanics' Institution*, and also from having myself observed the good effects which followed the delivery of popular lectures on physiology and the other branches of natural science, so constantly given to overflowing audiences in Edinburgh, in which fine and enlightened city, quackery is carried on to a much less extent than in even the smallest of our towns.

English practitioners may, by similar exertions, which, in my opinion, it is their duty, as well as their interest, to make, be well rewarded for their trouble, if not with filthy lucre, at any rate with a *higher recompense*, viz., the credit of having conferred a benefit on their poorer and less favoured fellow-citizens, and the reward which *money cannot afford*, of gratifying the noblest feelings of the human breast, charity and love. Medical men have it in their power to do much to enlighten the poorer classes of the community, both in their public and private capacities, and it should be as great a pleasure to them to instruct the mind as to relieve the body. I have the honour, Sir, to remain your obedient servant,

J. I. Ikin, Surgeon.

Leeds, Jan. 11, 1838.

CURE OF

ANKYLOSIS OF THE KNEE-JOINT.

To the Editor of The Lancet.

Sir,—In the number of your Journal of the 6th instant, I observe an extract from the French "Lancet," detailing an account of an operation for the cure of ankylosis of the kneejoint, in which your French contemporary or his reporter attributes to M. Duval "the happy idea of dividing the hamstrings, by analogical reasoning on what occurs after division of the tendo Achillis in cases of club-feet." I should not be surprised that any surgeon, after observing the safety and great advantage of dividing various tendons in congenital and other contractions of the anklejoint, and the facility which it affords for their cure, should apply the same principle to the treatment of deformities of other articulations, whether they are occasioned by spasmodic contraction of certain muscles, or by paralysis of their antagonists; by adhesions of muscles and tendons to bones from former abscesses, or by simple contraction from a long continued bent position,—all of which forms of disease in the anklejoint have come under my treatment by division of the tendons of the contracted muscles; but I cannot, by silence, allow any one to receive unjustly from English surgeons the merit of priority in introducing this extension to the kneejoint of the Stromeyerian method of curing contractions of the ankle.

Dr. Stromeyer himself has already, for several years past, been accustomed to divide the tendons of the semi-membranosus, semi-tendinosus, and biceps femoris muscles, and has, by this means, cured contractions of the kneejoint, some of them so-called ankyloses, of many years standing. I detailed that circumstance at a meeting of the *Royal Medico-Chirurgical Society*, reported in your Journal of April 1st, 1837. I have imitated Dr. Stromeyer's practice with regard to the articulation of the knee also, and six weeks since divided the above mentioned tendons in the popliteal region, in the case of a young lady, whose knee was contracted to an angle less than a right angle, the result of former disease of the joint, which had involved the ligaments and the bones, evidenced by partial displacement of the articular ends, and by several cicatrices adherent to the bones, where formerly necrosis had taken place. The disease had rendered her incompetent to exert locomotion, except with the aid of crutches, unless, indeed, she hopped upon the sound leg. The small wound healed immediately, and at the present time the leg is very nearly in a straight line with the thigh. On a future occasion I will relate to you the particulars

the progress and final result of the case.
I am, Sir, your obedient servant,
W. J. LITTLE, M. D.
126, Fenchurch-street,
Jan. 16, 1838.

*** Our notice of M. Duval's operation was simply a translation from a French journal. It does not appear that M. Duval had any knowledge of Stromeyer having previously performed a similar operation. Dr. Little must see that we have in no wise been unjust to English surgeons. Dr. L. can have no claim whatever to the extension of the principle in question to operations for ankylosis of the kneejoint, inasmuch as he was fully aware that Stromeyer had divided the tendons of the biceps flexor, &c., many years ago.—ED. L.

ALLEGED ERRORS

IN A CASE OF SUICIDE RECORDED BY

DR. O. D. HANDYSIDE.

To the Editor of THE LANCET.

Sir:—On perusing a paper in the last number of the "Edin. Med. and Surg. Journal," entitled "An Account of a Remarkable Case of Suicide, with Observations on the Fatal Issue of the Rapid Introduction of Air, in Large Quantity, into the Circulation, during Surgical Operations; by O. D. Handyside, M. D., Lecturer on Anatomy," we were surprised to find various observations, from the accuracy of which we feel called upon to dissent. Although our names are not mentioned in Dr. H.'s paper, we were present at the examination of the body, and had seen it before Dr. H., and witnessed all the circumstances connected with the case.

First, with regard to the quantity of blood lost (which must be considered to be of the utmost importance in deciding on the cause of death), he states "that not above *one pound and a half* of the fluid, and that for the most part venous, had escaped from the divided vessels." In refutation of this, we say that, in addition to the blood with which a great part of the dress of the person was *completely* saturated, there were *two* collections on the carpet, connected by a train, the smaller of which contained at least a pound, and the other three times that quantity. In making this assertion, we feel convinced that we are not exaggerating, but rather understating, the quantity.

Secondly, Dr. H. has stated that, "he resorted to some of the usual methods employed for effecting recovery from asphyxia, caused by the entrance of air into the heart, but without any effect." Although eleven months have now elapsed since the occurrence, we distinctly recollect that no means were resorted to by him, unless he considers that raising the head of the unfortunate man, for a very short time, and applying the hand to the regions of the heart and the stomach, were means sufficient to revive a patient under the circumstances which he has described.

Thirdly, he speaks of having performed with accuracy some experiments on the state of the blood vessels. We shall state the manner in which they were performed, and leave the public to judge how far they are to be relied upon as "careful." The first step which Dr. H. took, after exposing the heart (which to us appeared to be very little, if at all "distended"), was to apply *one* ligature, at a short distance from the origin of the aorta; after which he divided that vessel beyond the ligature, and removed the heart, without securing any of the other large vessels connected with it. Having thus left the thoracic portion of the aorta *open*, he proceeded to examine the abdominal aorta, as he accurately states, by "insulating it for three inches in extent, by ligatures applied above and below," and then placing it under the surface of water, when, on being opened, it gave vent to (*mirabile visu!*) some globules of air. Having left the vessel open at this place, also, he examined the femoral and popliteal arteries, in the same manner, and with similar results.

He has also spoken of the way in which he examined the liver, "by cutting into it under the surface of water." With respect to this, we may mention that he cut off some portions of that organ, which he placed under the surface of water, but from the mode of examination we do not think it at all wonderful that a few globules of air should escape from them.

There are some other inaccuracies in his paper which we shall refrain from noticing, from a fear of intruding too much on your space, and leading Dr. Handyside to suppose that we have any envious motive in doing so. We beg leave to say that our only reasons are to prevent medical men, and particularly medical jurists, from forming any conclusive opinion from the history of Dr. H.'s case. We are, Sir, your most obedient servants,

JAMES STEWART,
JOHN MACINTIRE,
JAMES H. WHITESIDE.
University of Edinburgh,
Jan. 17, 1838.

THE NERVOUS SYSTEM.—The truth of Sir Charles Bell's discoveries on the different powers of the motor and sentient nerves has been denied by Nasse, of Berlin, principally upon pathological data.—(*Physiological Researches*, vol. ii., p. 220.) Recent experiments, however, performed on frogs and goats fully sustain the conclusions of the English physiologist.

NAVY SURGEONS.

To the Editor of THE LANCET.

SIR:—A letter in your last Number, bearing the signature—"A Navy Surgeon,"—wishes, by insinuation, to ascribe to the Physician-General of the Navy all the degradations of which the naval medical officers have too just reason to complain. But your correspondent either forgets, or is not aware, that all the power possessed by the Physician-General is to represent to the Right Honourable the Lords Commissioners of the Admiralty any difficulties or defects he may meet in the medical department of the service, and to suggest to their Lordships such arrangements as may appear to him best calculated to remove them. That the Physician-General has made such representations, over and over again, is too well known to admit of being doubted. Is it fair then to stigmatise the man who is doing all he can to remedy the evil complained of, as the cause of those very evils which he has not the power to remedy, and which not only existed before he came into office, but were entailed upon the naval medical officers by the very man to whom they have erected a marble bust in *Haslar Hospital*, and of whom your correspondent is pleased to say, "Lord Melville had at his command gentlemen of erudition, general science, and great professional abilities; but then they might presume to *judge* for themselves and for *those under them*,—nay, have the audacity to "staun straicht in his Loardship's preesence?" It is not difficult to divine the intended interpretation of the above passage; but, notwithstanding all the talent, independence, and professional ability at the command of Lord Melville, it was by him, at that time, that the half-pay of the assistant-surgeons of the Navy was limited to three shillings a-day, and only three years of assistants' time allowed to be reckoned, however long they might have served in that rank; and it was then, too, that the maximum of the half-pay of the Navy Surgeons was limited to six shillings a-day, even though he might have served within a day of thirty years.

The contrast of the pay of medical officers in the Army and Navy, as fixed then, and as seen in the following tables, is striking.

FULL PAY PER DIEM.

ARMY.	Surgeon. £. s. d.	Assistant Surgeon. £. s. d.
Under 10 years actual service	0 13 0	0 7 6
After 10 and under 20 years service	0 15 0	0 10 0
.... 20 ..... 25	0 19 0	0 10 0
.... 25 years actual service	1 2 0	0 10 0
NAVY.		
Under 6 years service	0 10 0	0 6 6
After 6 and under 10 years service	0 11 0	
.... 10 20	0 14 0	
.... 20 years actual service	0 18 0	

HALF-PAY PER DIEM.

ARMY.	If put on Half-pay by Reduction of Establishment. Surgeon. £. s. d.	Assistant. £. s. d.	If put on Half-pay from other causes than Reduction of Establishment. Surgeon. £. s. d.	Assistant. £. s. d.
After serving on full pay less than 10 years	0 6 6	0 4 0	0 5 6	0 3 0
10 years and under 20	0 8 6	0 5 0	6 6 0	0 4 0
20 25	0 11 0	6 6 0	0 8 0	0 5 0
25 30	0 13 0	0 7 0	0 11 6	0 6 0
30 years	0 15 0	0 7 6	0 15 0	0 7 0

NAVY.

Surgeon.

Under 6 years service, 5s.
After 6 years service, 6s.
After 20 years service, if unable to serve, 10s. retirement.
After 30 years service, 15s. retirement.

Assistant-Surgeon.

After 2 years service, 2s. per diem.
After 3 years service, 3s. per diem.

This glaring difference, and the irksome condition in which the assistant-surgeons on board a man-of-war are placed, give the Army medical officers "not only a *feeling* but a *bearing of superiority over*" those of the Navy; but I deny that these things are ascribable to the Physician-General. They have been fairly represented to the Admiralty, in whom, or in Parliament, rests the power of applying a remedy.

Your correspondent is also wrong in asserting, that the men in the Army are better

supplied with "nutriments, condiments, and stimulants," than those in the Navy; and that "for a fever patient or convalescent, if a Navy surgeon order wine or brandy, he must pay for it out of his own pocket, or make it a mess concern;" I admit that such was partly the case during the time of the Medical Commissioners, whose eulogised talents and integrity were at the command of Lord Melville; but the Naval Medical Instructions (Art. 21) will prove, that the surgeon of every ship in the service has now the power of demanding from the purser whatever wine, spirits, preserved meat, or other comforts the patients may, in his opinion, require; and for this improvement the service is indebted to the Physician-General of the Navy, whom your correspondent, "A Navy Surgeon," seems so disposed unjustly to calumniate. I am, Sir, your obedient servant,

A NAVAL SURGEON OF THE LAST CENTURY.

Jan. 8, 1838.

IMPRISONMENT FOR DEBT BILL.

ITS EFFECTS ON THE PROFESSION.

To the Editor of THE LANCET.

SIR:—In your last, as well as in a former number of your Journal, I find the attention of the *Medical Association* has been drawn to the Bill now before Parliament, for the purpose of abolishing imprisonment for debt, the member who introduced the subject being apparently very sensible of the peculiar severity with which its enactments, if passed into a law, must bear on the medical practitioner.

In a journal devoted exclusively to medical science and its interests, it would be foreign to its object to intrude particular opinions, as to the political, or commercial necessity of the measure alluded to; the business of this letter is, with its bearings on a great body of the members, if not on the whole of our profession, if in its present shape it should, unfortunately for us, ever become the law of the land.

In saying "unfortunately for us," I merely allude to our own profession, without passing an opinion in any other sense of the word.

It is not, Sir, in the populous and wealthy squares and streets of the West-end, and in what is generally termed the higher walks of the profession, that the hardship of this Bill will be so much felt; it will be amongst those of our professional brethren, who earn their bread by daily and nightly toil, who receive few fees, and are at the beck and call of every stranger; and, in situations where necessity imposes a charge on humanity, far, very far, beyond the cold reasonings of discretion, or choice. Here, Sir, it will be felt, and felt with bitterness. The business of the medical man stands distinct, and separate from every other class of business, or profession. In nine times out of ten, or perhaps ninety-nine out of the hundred, he has no option, no choice,—necessity is the demand for his services, humanity the plea for his credit. Every other class of business can do as they please; they can demand prompt payment, or refuse to part with goods, or yield services, but with suffering, or the life of a fellow-creature at stake, we have no such choice; already our bankrupt and insolvent laws throw us much behind the protection afforded to every branch of commerce. There is no such thing as contracting an unjust debt with us; necessity is at all times the plea, and a decisive one it is; scarcely a schedule will pass the bankrupt or insolvent courts without some formidable item standing for medical expences, whilst the per contra sheet most frequently exhibits a string of medical creditors whose bills have been outstanding and accumulating during every year for which the balance-sheet is drawn; still we have no remedy, for necessity, like Banco's ghost, is ever ready to rise up against us, and scare us from the scene.

Woe betide the unfortunate practitioner, who, in self-preservation, refuses to recognise this all-potent plea on the ground of doubtful payment; with a voice beyond common sense, or justice, he is held up to public odium, censured for his cruelty, and stigmatised as akin to the brute.

I was once robbed whilst performing an act of humanity over a senseless drunken beast; and, on the very next coroner's inquest, narrowly escaped severe odium, for refusing to go there again; and thus it is, a power, just and proper in itself, when equitably applied, rises above us, and renders discretion, or choice, impossible.

Let me not be stigmatised as the advocate for cruelty, for such I am not. If it is a matter of compulsion on our parts to give credit, let it be an equal compulsion on our debtors to afford payment; equity demands that we should have a power of payment beyond the doubtful property of a family, perhaps for the first time seen, in elegant furnished lodgings, or an apparently affluent but insolvent or dishonest tradesman. During thirteen years' practice, I have never sued but twice in my life, and these were flagrant cases of fraud, but I have recovered hundreds of pounds, under the threat of enforcing payment, which, under this Bill, would have been wholly lost.

I would have the profession ponder over this Bill; and let those who hold themselves up as the conservators and guardians of it (the Colleges and the Hall) prove that they really are so, by watchfulness and attention to its interests; we have the right to claim it; and if their duties are not merely confined to the receipt of fees,

let them adopt some steps to enforce on Parliament the propriety of some protecting clause (equal to the compulsion of credit), by which we may be able to obtain payment from an unwilling or dishonest debtor. I am, Sir, yours obediently,

FRAS. BULLIN, Surgeon, &c.

Jan. 18, 1838.

THE LANCET.

London, Saturday, January 27, 1838.

IN the exercise of our editorial duty we are sometimes called upon to fulfil the pleasing task of directing public attention to sterling, though neglected merit,—of bringing, from time to time, into notice, some of those actions which ennoble alike the individual who has performed them, and the profession to which he belongs. Unfortunately, however, so great is the perversity of man, so widely-spread is the power of temptations which he cannot resist, of circumstances which he cannot or will not control, that we are frequently forced to expose the vices or misdeeds of public functionaries, when we would fain dwell only upon their virtues, did they possess any. They who would eradicate vice, or correct abuse, must make up their minds to recur, again and again, to subjects and actions from which they would willingly turn away in disgust.

We are compelled, by a moral obligation of public duty, once more to direct attention to the malapraxis and misdeeds of Mr. SAMUEL COOPER, senior surgeon to *University College Hospital*, and—while the *facts* connected with the case of the late unfortunate JAMES CHAPLIN are still fresh in the mind,—to add, for the benefit of our readers, of Mr. SAMUEL COOPER himself, and of his future hospital patients, if he should have any, a few observations, which the multiplicity of inconsistencies, absurdities, and errors, exhibited by the said SAMUEL COOPER, alone prevented us from delivering on former occasions.

The profession may possibly exclaim "Ecce iterum Crispinus!" But to our task.—In the temperate and gentlemanlike discourse which Mr. SAMUEL COOPER addressed to the students relative to the case of JAMES CHAPLIN and our remarks thereon, he advanced not less than eleven charges against our veracity, against the motives by which we have been actuated during the course of this unfortunate affair, and against our surgical knowledge, with various other counts too tedious to be enumerated. We have already disposed of the whole of these counter-charges, which Mr. SAMUEL COOPER, with the recklessness of a culprit who is about to be convicted of a capital offence, has thrown forth; we shall, therefore, confine ourselves on the present occasion, to the easy task of cutting from under Mr. COOPER the rotten plank upon which he has recently been whining, and then leave him for a while to the judgment of the public, and the condemnation of his own conscience.

One of our charges, which fell with crushing weight upon Mr. SAMUEL COOPER, was that of *neglect*. Distinguished and talented a surgeon cannot be, unless Nature have endowed him with rare and enviable qualities; but the *humblest* professor of the healing art may be *diligent* in the performance of his duties: it requires no talent to be up and stirring; no possible excuse can shelter a public medical functionary from the odium which must attach to idleness or negligence in the exercise of the important trust which has been confided to him. Mr. SAMUEL COOPER felt the force of this, our first thrust, and endeavoured to parry it by a contemptible equivocation. He says (we quote his own words), "The reason of my "not having seen the patient directly after "his admission is, that *I was never asked* "*to do so.*"

Now, what are the facts of the case in relation to this circumstance? They are the following. As soon as the house-surgeon saw the wounded man, and ascertained the extreme gravity of the injury with which he was afflicted, he sent for Mr. QUAIN. The

junior surgeon was either absent from home, or ill in bed; the cause of his inability to attend at the hospital is immaterial; we merely mention it to show that we acquit Mr. QUAIN of all participation in this unfortunate affair. Mr. SAMUEL COOPER was then sought at his own home; we cannot, of course, pretend to say what may have passed between Mr. SAMUEL COOPER and the messenger, or whether the former was summoned in "set terms" to attend the wounded man immediately, or not; but of this, at least, we are certain, that Mr. SAMUEL COOPER did not make his appearance at *University College Hospital* until eleven or twelve hours after the communication just alluded to. Mr. SAMUEL COOPER says that he was never *asked* to see the patient; but we demand of any man of plain common sense whether the fact of the house-surgeon having sent for Mr. QUAIN, and then for Mr. SAMUEL COOPER, was not a *bonâ fide* appeal for assistance from himself to his superior in office? Mr. WATTS may not have said to the senior surgeon of *University College Hospital*, "get up from your "rubber, call your carriage, and drive at once to Gower-street;" such language would have been unbecoming, and was not employed; but the circumstance of Mr. WATTS's double appeal was a proof that he was unwilling to risk the responsibility of the case upon his own judgment, and, no matter in what terms conveyed, ought to have been understood by the least sagacious hospital surgeon in the empire. We again repeat, that Mr. SAMUEL COOPER's excuse "I was "not *asked* to go," although he was distinctly sent for, is a mean and miserable equivocation.

Mr. SAMUEL COOPER, it appears, can play upon words with a strange facility whenever such an employment is calculated to answer his purpose; yet he is obstinately, or, rather, wilfully dull of comprehension when his chastiser makes use even of an innocent *equivoque*. This remark leads us to Mr. SAMUEL COOPER's second-counter charge gainst us, in which he puts forth, with a small show of plausibility, that we "mendaciously" asserted, that "the man had not "been *visited* by any surgeon of the hospital, "whereas he (Mr. S. C.) had *visited* him "thrice in the course of twenty-four hours." Mr. SAMUEL COOPER has taken the liberty of substituting the word *visited* for the word *treated*, which we employed, a liberty which makes no small change in the sense and spirit of our remark. Our sentence ran thus:—"that the case was not *treated* by any one of the surgeons." *Visit* him the senior surgeon did, and a heavy visitation it assuredly was for the unfortunate victim; but *treated* he was not, at least in the proper sense of the term. The phrase which we employed was intended, as every one not wilfully blind must have perceived, to convey an intimation that the case had been *mistreated* by *one* of the aforesaid surgeons; the whole gist of our subsequent argument proves that the word, *treated*, was used ironically; for how could we attribute to Mr. COOPER the grievous faults of hesitation and want of surgical knowledge in the treatment of JAMES CHAPLIN's case, if the said SAMUEL COOPER never saw the wounded man. Our language was that of polite raillery, and thus, by the vulgar abuse levelled against us by Mr. COOPER, we have been repaid for our politeness in casting "pearls before swine."

From moral and literary argumentation we now proceed to discuss points which are purely surgical. We have not to travel far for a text. The second clause of Mr. SAMUEL COOPER's defence of himself is thus expressed:—"The protrusion, or swelling, what-"ever it might be, was reduced by me in "the morning, as soon as I was informed of "the existence of a swelling; and this was "so much the case that we were thinking "of applying a compress."

The man, be it remembered, had been vomiting all night, and when Mr. SAMUEL COOPER saw him in the morning, he gave it as his opinion that the intestine had been perforated by the bayonet. (See *Mr. Taylor's Letter*, LANCET, No. 7.)

It is also well to keep in mind that we accused Mr. COOPER of having overlooked, or, rather, of having been unable to discover, the presence of strangulation of the gut, a circumstance which was indicated to us by the post-mortem appearances, as well as by the symptoms which existed during life. Mr. COOPER having, unfortunately for himself, announced in a public lecture, "the "*entangled* and *pinched* state of the bowel "in the wound," and having also acknowledged, previously to our charges against him being preferred, that "a portion of the "intestine was so *strangulated* in the wound "that even air could not be blown through "it;" having, we repeat, made these admissions, and being afterwards taunted with ignorance, or stupidity, in not having discovered, *during* the patient's life, the existence of so vitally important a circumstance, Mr. SAMUEL COOPER turns round and says Oh! there was no strangulation of the gut in the wound, for I returned it in the morning, by *gentle* pressure, and was even thinking of placing a compress on the abdomen to keep it in.

All this is very cunning, and would appear highly plausible were it not for the contrast which it presents with section 11 of Mr. SAMUEL COOPER's responses, which runs thus:—"From the accidental condi- "dition of the protruded piece of bowel, the "wounded state of it would not have been "visible if the skin had been divided, and, "*therefore, it must certainly have been pushed* "*back into the abdomen, so as to have occa-* "*sioned the risk of intestinal effusion, in ad-* "*dition to that of copious extravasation of* "*blood.* Would the man have been then in "an improved state?"

Certainly not, Mr. SAMUEL, but compare the passage with the second of your category of complaints, and then call yourself surgeon if you dare. To have cut down upon the gut and returned it, quoth Mr. COOPER, would have been highly injudicious, yet fifty lines before, the same SAMUEL COOPER, in order to avoid the charge of having been ignorant that strangulation existed, gravely answers us, that he had reduced the swelling (*the gut*) in the morning, without cutting down upon it.

Admitting, for the sake of argumentation this latter fact; granting, for a moment, the supposition that Mr. SAMUEL COOPER did really reduce the intestine, on the morning of the 12th of October, what a happy illustration does it afford us of the words of the poet,

"Dum vitant vitia Stulti in contraria currunt."

In trying to escape our accusation, Mr. SAMUEL COOPER has shown himself guilty of the most egregious chirurgical blunder. What! He knew the intestine to be wounded, at least so Mr. TAYLOE, the house-surgeon, informs us, and yet he returned the wounded gut (according to his own account) into the cavity of the abdomen. The wounded bowel, as if endowed with instinct, presented itself at the wound, and would have occupied a place of comparative safety but for the surgical enemy at the frontier, who, to crown all, even thought *of applying a compress.*

What a curious, what an instructive, what a melancholy lesson are we taught by this struggle between Nature and SAMUEL COOPER, in which, alas! the latter proved to be victorious. While Nature, with her wonted foresight, makes every effort in her power towards the salvation of the wounded man, this pretender to a knowledge of practical surgery, returns the perforated intestine, in spite of Nature, who forced it into a place of safety, and, with the consummate self-complacency which profound ignorance alone bestows, assures us that he even contemplated the application of a *compress*, in order to retain the wounded intestine within the cavity of the abdomen, and—thus ensure the effusion of fæcal matter into the sac of the peritoneum. Yet this man calls himself a "Professor of the Practice of Surgery." *Professor* he may be, in one sense of the word, but a barber or a tinker might make a better practitioner. Mr. SAMUEL COOPER distinctly tells us that he

had diagnosticated a wound of the intestine, yet when provident Nature placed the perforated gut *outside* the cavity of the abdomen, SAMUEL COOPER squeezed it back again, and, after having thus performed *a feat* which, were it not for a miracle, must have transferred the unfortunate man's fæces from the *inside* of his gut to the *outside*, chuckles over the recollection of having thought of applying a *compress*!!

The above remarks, our readers will observe, are naturally called forth by the *supposition* that Mr. SAMUEL COOPER's version of JAMES CHAPLIN's case is a faithful one. If there existed no strangulation or incarceration of the intestine in the external wound; if the gut really had been reduced, as Mr. SAMUEL COOPER has affirmed, then do the few gentle criticisms which we have just delivered, operate with a force that no sophistry or mendacity can evade. The very efforts, however, which Mr. SAMUEL COOPER uses to escape from our charges, prove that the latter have been well-founded, every plunge which he has made having only served to fix him still deeper in the mire.

There was no strangulation of the gut say you, Mr. SAMUEL; how, then, do you account for not having found fæces in the bag of the peritoneum? You pushed back this wounded gut—this intestine with a gash in it,—and then, to crown your work, you threw up two laxative clysters. What became of those clysters, Mr. SAMUEL? We do not find that they are mentioned amongst the contents of the peritoneal cavity of the slaughtered man; yet *if*, as you say, the bayonet had passed through the rectum, it is highly probable that more or less of the two pints of clyster made its way into that cavity. Such an occurrence might explain the existence of violent inflammation of the serous membrane, which you affirm to have been present, without our being compelled to attribute unheard-of effects to the presence of blood in contact with the peritoneum, in a case where there was *no* reaction after the patient had received a punctured wound of the abdomen.

You are pleased, in your fifth counter-charge, to abuse us because we affirmed "that JAMES CHAPLIN perished from the "effects of strangulated intestine, and not of "hæmorrhage or inflammation;" and you insinuate our ignorance of a fact which is known to every tyro, that unrelieved strangulation of the gut must inevitably produce inflammation of its serous covering. There is not, we will venture to assert, a surgeon in the United Kingdom, save Mr. SAMUEL COOPER, who did not perceive that by the term "inflammation," as employed in the sentence just quoted, we meant to designate *simple peritonitis*, the consequence of a penetrating wound of the abdomen, as distinguished from inflammation of the serous membrane excited by effusion of fæcal matter, by strangulation of intestine, or by any other complication of such a penetrating wound. We enumerated the ordinary causes of death in wounds of the abdomen, and as simple peritonitis is the most common amongst those causes, so we thought it sufficiently indicated by the familiar and ordinary word "inflammation."

We regret that we cannot promise our readers that this is the last time on which we shall trouble them with remarks on the blunders of Mr. SAMUEL COOPER in the deplorable case of JAMES CHAPLIN.

MEDICO-BOTANICAL SOCIETY.

Wednesday, January 10th.

CINCHONA BARK.

THE reading of Dr. HANCOCK's paper was concluded. From the various arguments adduced it appeared that all the useful constituents of Peruvian bark may be obtained by the aid of menstrua slightly impregnated with alcohol and spirituous ethers, or with acids. With a view to investigate this subject the author commenced various experiments in the year 1826; the main results were briefly these:—the simple infusion of the bark in plain water became fœtid in three or four days, losing its faint cinchonic odour, and having no taste of the bark; others, with the addition of acids, retained their taste and odour for months.

WESTMINSTER MEDICAL SOCIETY.

Saturday, January 20th, 1838.

Dr. WILLIAMS, President.

PERICARDITIS.—THE PRESENT EPIDEMIC.—SINGULAR CUTANEOUS AFFECTIONS.

THE PRESIDENT detailed a case illustrative of the value of physical signs in pericarditis. The subject of the affection was a woman who had suffered from rheumatism; pericarditis supervened on this state, and was indicated by many of the usual symptoms of the affection, as also by the friction sound, which was very audible on applying the ear to the chest. Under the treatment pursued she got apparently well, but the friction sound still continued. She died afterwards of erysipelas, the friction sound having, four or five days before this event, entirely ceased, but a short file sound accompanied the first sound of the heart. The diagnosis given was, that the heart had become universally adherent to the pericardium; and this afterwards was ascertained to be the case, there being scarcely a spot on the surface of the heart which was not adherent to its enclosing membrane. Without the aid of physical signs no such diagnosis could have been formed.

Dr. ADDISON made some remarks on the present prevailing epidemic, and also on some disorders by which it seemed to be succeeded. After making some general observations on epidemics, and referring to the observations of Sydenham on the subject, he proceeded to give a history of the disorder now so prevalent. It was ushered in by many of the symptoms usually present in common continued fever; there were a feeling of general indisposition, much debility, aching pains of the limbs and head, some heat of skin, but not peculiar. Even in the young the tongue throughout its whole substance was of a red colour, the pulse was highly characteristic of debility, soft, compressible, and feeble; the brain was particularly involved; in some cases there was perfect mental imbecility, accompanied with deafness; sometimes in the night the face became flushed; there was restlessness, and occasionally delirium. These symptoms would go on for three or four weeks, and then terminate in a slow and unsatisfactory convalescence, which was preceded by a great rapidity of breathing. That which was, however, most characteristic of the epidemic was a complication which often misled the practitioner: this consisted in a peculiar exaggeration of the petechiæ which were sometimes observed in common continued fever. In the present epidemic this symptom was very variable in the time of its appearance, occasionally coming on within the first three days, but generally not till the second or third week. Sometimes this symptom more resembled the measles, in the decline of that eruption, than any thing else. In some cases it consisted of large patches of erythema, but had occasionally become so universal over the skin and mucous membranes of the throat as to be mistaken for scarlet fever, and only ascertained to be otherwise by the progress of the disease. Regarding the *diagnosis* of the affection there was little fear of error if the practitioner was not thrown off his guard by the eruption; this was not likely to be the case when he was aware that an affection like that under consideration was prevalent. The affection was peculiar in attacking all ages indiscriminately; he (Dr. Addison) had seen many instances of it in children. With respect to the prognosis, this disease was almost sure to prove fatal to the aged. In the middle-aged, where the constitution was good, and where bleeding had been avoided, if support was given sufficiently early, the patients generally did well. Regarding the treatment to be employed, the remarkable debility which distinguished the affection, prohibited all active depletory measures, unless in cases in which there were complications; this was not often the case; and in general the simpler the treatment, as in common continued fever, the better. Mild laxatives occasionally to move the bowels, with a small quantity of the sesquicarbonate of ammonia, in camphor juleps, three times a day, was a medicine generally given in *Guy's Hospital*. The diet in the early stages might consist of arrowroot and other farinaceous food; beef-tea might, however, soon be given, and when the brain would bear it, a small quantity of wine. These means formed the chief part of the treatment, and had been very successful. When the bowels were involved, which was very rarely the case, then small doses of mercury with chalk, or calomel and opium, generally succeeded in preventing the local affection. Dissections of fatal cases of the epidemic had as yet been few, the number of deaths in the hospital having been very limited. In some districts he understood the mortality had been very great; and he had been informed by a medical officer to a dispensary, that one out of every three cases occurring in the practice of that institution had terminated fatally. In the cases examined the principal lesions were found in the brain and lungs; the lungs were flabby and œdematous; the ventricles of the brain contained a large quantity of fluid; the blood in both organs was remarkably fluid. Regarding the affections which might be considered as sequelæ of the epidemic, he had observed, of late, cases of cutaneous diseases, accompanied with great constitutional debility, such as he had never seen before. He had seen one or two cases in which abscesses, ac-

companied with much febrile disturbance, had formed under the scapulæ and other parts of the body. He also mentioned the case of a young woman who was admitted into the hospital for what appeared at first to be erythema nodosum occurring on the skin; there was, however, a distress of the countenance with constitutional irritation, which was not usual in that affection. Shortly afterwards a large diffused abscess formed near the shin-bone, and the opposite leg became affected in the same way. He had seen a case of cutaneous eruption on a man's hands and ankles, which had many characters of that rare disease called herpes iris; the vesicles had not that circular form which is observed in this species of herpes; he did not know that he could call it by a better name than *erythema vesiculatum*. In a woman who was suffering from bronchitis an eruption appeared, at first characterised by an erythematous spot, which soon after became ecchymosed; the disease in this case could be designated *erythema hæmorrhagicum*.

Dr. Chowne considered the most characteristic feature of the disease was the great irregularity which it exhibited in all its stages; there was no particular time for the appearance of any symptom, nor any stated period for the continuance of either of the stages. He had noticed a difficulty of respiration in many cases. Deafness was an almost universal symptom. Extreme tenderness of the muscles about the thorax was also very commonly present. The cases he had seen resembled, in other particulars, those which had fallen under the notice of Dr. Addison. He (Dr. C.) had only seen one case in which there was no decided eruption present. The clean state of the tongue was a remarkable symptom; he had seen it perfectly healthy, even though the patient was as debilitated as if in the latter stages of typhus. He had seen patients carried through the worst stages under the saline treatment; others had been treated as successfully by tonics. In all cases nourishment had been found requisite. Sloughing took place extremely rapidly in this affection; in one case the patient sank from it after the epidemic itself had been cured.

Dr. A. T. Thomson thought the eruption present in the affection more characteristic of petechia than Dr. Addison appeared to do. He (Dr. T.) had ventured, in all cases which had come under his care, to bring the patients under the influence of mercury; he had not lost a single patient whom he had been able to affect decidedly with this remedy. He supported the strength with broth and white wine whey, and gave an infusion of serpentary and menyanthes trifoliata. Regarding peculiar eruptions of the skin, he had lately seen an interesting case. A man was admitted into *University College Hospital* for rheumatism, chiefly affecting the shoulders, elbows, and wrists. There was much depression of strength, great anxiety of countenance, and the pulse was full soft, and compressible, ranging from 80 to 100; the bowels on his admission were in a lax state. There was a degree of deafness. Soon after his admission an eruption, which was always preceded by acute pain, appeared in different parts of the body, frequently varying its position. At first the eruption resembled urticaria, the tumours rising half an inch above the level of the skin; in the centre of each tumour was a mark like the result of the sting of a small insect, this spot gradually enlarged until it covered the whole tumour. At the end of two days the tumour disappeared, leaving an ecchymosed spot. The eruption then became slightly copper-coloured, and then disappeared. The patient took calomel and tartar emetic for his rheumatic affection; the mouth became affected, but the eruption, which was at first considered to be syphilitic, did not give way. The mouth was allowed to get well, and then calomel was again administered; the mouth was not affected, but the eruption disappeared.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 9th, 1838.

Dr. Bright, President.

History of a Female who has Four Mammæ and Nipples. By Robt. Lee, M.D., F.R.S., Physician to the British Lying-in Hospital, and Lecturer on Midwifery at St. George's Hospital.

The individual in whom the above-mentioned peculiarity presented itself was thirty-five years of age, and was prematurely delivered of a still-born child, on the 20th of July, 1835. The mammæ having afterwards become excessively painful and distended, she was compelled to permit the author to make an examination of them, by which it was discovered that she had two mammæ and two nipples on each side. The inferior or pectoral mammæ were fully developed, and in the natural situation, and their nipples, areolæ, and glands presented nothing unusual in their appearance. Near the anterior margins of the axilla, a little higher up on each side, was situated another mamma, about one-sixth the size of the others. The nipples of these were small and flat, but when gently pressed, a milky fluid flowed copiously from several ducts which opened upon their extremities. When milk was drawn from the lower breasts, a small quantity usually escaped from the nipples of the upper, and when the draught came into the former, the latter invariably became hard and distended. From the flatness of

the nipples of the upper breasts, the patient had never been able to suckle with them.

Narrative of a Case, in which the Parotid Gland was Extirpated, on Account of Disease, in the Toronto Hospital, Upper Canada. By C. WIDMER, Esq., Surgeon to the Forces.

An elliptical incision having been made in the integuments of the most prominent point of the tumour, its removal was effected without much difficulty, and with very little loss of blood,—the facility being attributed by the author to the adoption of the method of separating the mass from the lower part, upwards. The external jugular vein, and external carotid artery being necessarily divided, were immediately secured by ligatures,—the latter being tied at both ends. When the removal of the mass had been entirely accomplished, the styloid process and the transverse process of the atlas, were exposed to view. The result of the operation was quite favourable, the wound being entirely healed in six weeks.

Two Cases of Tumours Pressing upon the Superior Vena Cava, causing Œdema of the Face and Superior Extremities. By JOHN WILSON, M. D., Physician to the Middlesex Hospital.

In the first case here related, the compression of the vein was the consequence of an aneurysm of the arteria innominata, the sac of which was found to contain a firm mass of fibrine. The vena cava superior was in contact with the sac, and communicated with it by a small opening. Portions of fibrine were found in the vein, which was, however, still pervious.

The obstruction of the vena cava, in the other instance related, arose from the pressure of a tumour of large size and anomalous structure, which completely surrounded the vein. The head of the pancreas was in this case enlarged to the diameter of four inches.

DEBATES ON THE ABOVE PAPERS.

In reference to the first of the foregoing cases, Mr. STANLEY said that he recollected that, fourteen or fifteen years ago, a woman applied to *St. Bartholomew's Hospital*, to be relieved, if possible, of two troublesome tumours, one of which was situated in each axilla. On examining these tumours, they were found to be small but distinct mammary glands, without any nipple, but containing orifices from which there was a copious secretion of milk. The woman was suckling at the time, and when she put the child to the breast, the axillary mammæ immediately gave out milk. Nothing was done for the relief of the patient, and he (Mr. Stanley) lost sight of her.

SPONTANEOUS AMPUTATION IN UTERO.—In the course of the conversation which followed upon the other cases,

Mr. STANLEY stated that some time since he had an opportunity of examining a fœtus, apparently full-grown, and in every respect perfect, except that it was deficient in the feet and half of each leg, the limbs having every appearance of having been amputated in the womb. The marks of the amputation corresponded on both the limbs; the cicatrix was perfectly formed in each. He examined one of the stumps, and it presented all the appearances which are usually observed after amputation. He thought that the cases recorded by Dr. Montgomery, of Dublin, proved, beyond all dispute, that amputation in utero might and did occur. As to the mode in which the process was effected, there might be a difference of opinion. There was one point connected with this kind of cases which was particularly interesting, and that was the fact of the possession of sufficient vital power by the fœtus, to enable it, not only to separate entire limbs, but to carry on and effect the process of cicatrisation. Regarding the case which he (Mr. Stanley) had related, he could state no farther particulars, nor did he know whether the amputated members were found at the time of the delivery of the woman.

Mr. DAVIS had delivered a woman twenty-five years since, of a child who lived two years, and in whom there appeared to have been regular amputation of the left fore-arm. The infant was in other respects perfect.

Mr. ARNOTT believed that some time since a case had been related to the Society, in which amputation of the leg had taken place in the uterus. In this instance the leg was found and exhibited to the members of the Society.

Dr. ROBERT LEE thought the cases recorded by Dr. Montgomery had set the question at rest as to the possibility of amputation occurring in the fœtus in utero. There was great difficulty, however, in explaining how the amputation could be effected. He (Dr. Lee) did not understand how the ligatures could be formed. He did not think that sufficient compression could be made by the umbilical cord to produce the effect without complete interruption to the circulation through it. He had seen cases in which depressions in limbs of the fœtus were made by the cord having been twisted round them, but never to an extent at all likely to produce amputation.

Mr. LANGSTAFFE was inclined to the opinion that these cases of supposed amputation, occuring in the fœtus, were, in point of fact, original deficiences in the embryo.

INFLUENCE OF PARTICULAR STATES OF THE ATMOSPHERE IN THE PRODUCTION OF DISEASE, AND ON THE ACTION OF MERCURY AS A SIALOGOGUE.

Mr. ARNOTT inquired whether any member had noticed that phlebitis terminating fatally, had been more than usually common during the last four or five weeks. Five cases of inflammation of the veins, which ended unfavourably, had, within the above period, occurred in the *Middlesex Hospital*. The disease in question had supervened on a variety of diseased states. It occurred in a man who had erysipelas; in a woman with a recto-vaginal fistula; in a man with a compound fracture of the leg, which seemed for some time to be going on most favourably, when, at the end of three weeks, he was seized with rigor, inflammation of the veins came on, and he perished. In another instance, the disease followed amputation of the thigh, the femoral vein bled freely, no ligature was applied to it; the stump was doing well, when a rigor came on, followed by phlebitis, and the man sunk. The fifth case was that of a girl, who received a very slight injury of the scalp; she came into the hospital on the 9th of December, and left it on the 19th, quite well. In about ten days afterwards she was brought back in a state of collapse; she lingered two days and expired. In this case there was a large number of depositions of pus in the diploe, and lymph was found in the longitudinal sinus. In four of the above cases pus was found in the veins; in the other the coats of the veins had become thickened and adherent. The patients were all in seperate wards.

Mr. PERRY had been connected with the *Foundling Hospital* for the last seventeen years. During the last five weeks several cases of severe traumatic erysipelas had followed very slight affections. Two of them had arisen from trifling chilblains, and one from slight discharge from the ear. He had only seen one case of phlebitis in the hospital, and that was within the last five weeks. Generally speaking, the cases in the hospital are exceedingly slight.

Mr. STANLEY had seen one case of phlebitis following amputation of the thigh, within the period in question. In this instance inflammation of the hipjoint also occurred. Regarding the fact of inflammation of the veins occurring in cases where the vein bled profusely after amputation, he thought that these cases were not uncommon, and that the vein was previously in a state of disease. After death in these cases, the veins were found much more diseased than would have been the case had not some affection besides the recent inflammation existed. Regarding the effects of ligature applied to veins, in the production of phlebitis, he considered that the disease was as frequent in cases where no ligature was applied, as in those where it was. He had never been able to draw any conclusion in relation to cause and effect respecting the application of the ligature.

Dr. BRIGHT considered that from the unusual mildness of the season, during the period in question, something unusual regarding diseases might be reasonably expected. During this period he had noticed in some cases, the singularly easy manner in which ptyalism was produced by very minute quantities of mercury. In one instance, a robust young man was affected with an annoying salivation by taking two grains of blue pill, with a few grains of rhubarb.

Dr. WEBSTER had noticed, for a long period, the effects of particular states of the atmosphere in the production of ptyalism. During the time he was physician to a dispensary he took particular notice of this fact. He found when the wind was in the south-west ptyalism was easily and rapidly produced; in colder quarters with greater difficulty.

A book was exhibited to the members, containing a statistical account of all the surgical patients which had been admitted into *St. Thomas's Hospital*, from the 1st of October, 1836, to the present time. The account is the labour of Mr. South, and is undoubtedly of considerable value, and we trust may furnish an example which will be followed by other hospital surgeons. The following particulars form the different heads into which the pages of the book are divided:—

"Name.—Age.—Occupation.—Ward.—Number.—Admission.—Ward-book page.—Disease.—Accident.—Operation.—Discharged.—Died.—Remarks."

BRITISH MEDICAL ASSOCIATION.

Tuesday, January 23rd, 1838.

MEETING OF COUNCIL.

THE minutes of the last meeting having been read and confirmed, the ballot for a new Councillor was proceeded with. Dr. Granville was unanimously elected.

A Member present put into the hands of the President, a petition from the legally authorised practitioners of Leeds, praying for the suppression of quackery, and for the insertion of a special clause in the Apothecaries' Act, with this view.

It was moved and carried,—"That the Chairman be requested to communicate with the medical practitioners of Leeds respecting their petition to the House of Commons."

Some fatal cases, in which chemists and druggists had been concerned, were related, and a discussion took place.

It was at last moved,—"That the subject of practising chemists, now brought before the Council, be referred to the Anti-quackery Committee."

The attention of the Council was drawn to an article in a Dublin paper of the 11th of January, addressed to the Secretary of the Association, headed, "Royal College of Surgeons—Pharmacy Laws," in which it appears many provisions for the better defining the duties of apothecaries, &c. were adopted without a dissentient voice. "The Dublin Committee expressed their conviction, that the College would probably experience no serious opposition to the proposed measure, except from those interested in the perpetuation of existing abuses."

The two following motions were then brought forward:—

"That the necessary steps be immediately taken for procuring signatures to the general petition praying for a National Faculty, adopted at the anniversary meeting; and that a copy of the same be prepared and signed, to be presented to the House of Lords."

"That the Secretary be directed to apply to the Councils of the different Medical Societies in London, requesting them to permit the petition of the *British Medical Association* and others, praying for a National Faculty, to be laid upon the tables of those Societies for signature."

Mr. Farr had, at the end of a discussion on a previous night, requested permission to read a paper "On Benevolent Funds, and on Life Assurance in Health and Sickness." He thought a dispassionate view of the subject might be of general use, and would enable them to deal better, as well with the practical questions which had been brought before them, as with those of which notice had been given. The first part of the paper was then read; the second to be read at the next meeting.

MEDICAL SOCIETY OF LONDON.

Monday, January 22nd.

Mr. Dendy mentioned that the patient affected with morbus pedicularis noticed in our last number was getting better. He saw her a day or two since, and only noticed six pediculi on the body, though she had not been washed for six or eight hours. The insects still seemed to be breeding in the axilla and on the pubis, though these parts had been shaved.

The members were occupied during the evening in viewing some beautiful specimens of structural anatomy through Mr. Goadby's microscopes.

STATISTICS
OF THE
CLINICAL HOSPITAL OF MIDWIFERY
AT THE
UNIVERSITY OF BERLIN.

The number of cases which occurred between the 1st of October, 1829, and the 31st of December, 1835, was 2656. Of these births 2035 were single; 21 were twin-births; so that the total number of children born was 2077. The number of children born before the full period of gestation was 32, and the sexes were distributed in the following proportions:—Males, 1061; females, 1000; sex undetermined, 16. Of the mothers, 38 died in childbed. 1913 children were born alive; 132 were born dead, and of the former 92 died within the first three weeks of their existence.

It is a remarkable fact that of the children born in the hospital, only 1 in 30 were born dead; while of those born of mothers, treated by the pupils in their own houses, not less than 1 in 9 were born dead: a proof of the beneficial influence produced by prompt and efficient medical assistance, &c.

Presentations.— Regular presentation of the vertex, 1911; face presentations, 18; presentation of the forehead, 5; buttocks, 47; knees, 2; feet, 2; irregular presentations, 54.

The labour was perfectly natural in 1711 cases; the forceps was employed in 178; extraction of the fœtus in 55. In 4 cases irregular presentations of the child were very considerably improved by external manipulations, and by placing the mother in a commodious posture. In 57 cases turning by the feet, with or without extraction, was had recourse to; and in 5 cases premature labour was brought on by art. Perforation of the head was performed in 6 cases; embryotomy in 2. The Cæsarean operation, before death, in 1 case; after death in 2. Artificial extraction of the placenta was performed in 47 cases. In 57 artificial rupture of the membranes was thought necessary; and, finally, in three cases, abnormal conformation of the external parts rendered it necessary to divide the labia.

The following are some of the most remarkable circumstances connected with the art of midwifery, which occurred:—

Two of the patients were subject to habitual attacks of epilepsy. In the first case the disease was suspended during the first 4½ months of pregnancy; the accesses then returned, and continued in a very severe degree to the end of pregnancy. The labour, however, proceeded in the natural way, and the patient became speedily convalescent. In the second case the accesses were suspended during the whole course of preg-

hancy, and the labour was an easy one. Professor Busch assures us that, during his practice, he saw only a single case in which the epileptic attack came on during labour.

Rheumatism of the uterus occurred in several cases, but yielded to the appropriate treatment, without rendering it necessary to produce premature labour.

Menstruation during pregnancy.—This occurred once, twice, or even thrice during pregnancy, without affecting it in any pernicious manner. In two cases menstruation had not existed before conception, but set in, for the first time, after the women became pregnant.

Cholera.—In one case the woman was seized with this disease, and died in fifteen hours after the commencement of the attack. The motions of the child were felt ten hours previously to the mother's death. The Cæsarean operation was performed immediately, but the child was dead also.

Duration of Labour.—The longest labour continued for six days and six hours, and then terminated happily without the interference of art. In 80 cases labour was prolonged for three days and more without any injury to mother or child. The shortest labour terminated in 39 minutes.

Imperfect action of the uterus was very frequently observed in all these cases. The powder of the secale cornutum was administered in doses of ten grains every ten or fifteen minutes. Of 175 cases in which it was given, its action on the uterus was manifest in 115. The ergot did not seem to exercise any unfavourable influence on the child, for, of 177 cases, only one was observed in which the death of the child could be traced to it as a cause.

Convulsions and Eclampsia.—These were observed in 11 cases; 6 were examples of true eclampsia; 5 of simple, though very severe convulsions. Of the former six, four patients died.—*Kleinert's Repert.*, April, 1837, p. 33.

A FEW REMARKS ON THE

STATE OF MEDICINE AMONGST THE CHINESE.

By a RUSSIAN PHYSICIAN.*

THE science of medicine amongst the Chinese is of very early date, having been first cultivated in the reign of the Emperor Huandy, 4533 years ago, who is regarded as the author of the first works on medicine in the Chinese language, entitled "Heidsin" and "Suwen." These, and the "Aphorisms" of Ziobe, are still regarded in China as the ground works of medicine. Although the works just mentioned contain but little information concerning anatomy (for the Chinese do not practice dissection of the human body), yet the Chinese physicians are not altogether unacquainted with anatomy and physiology. They know the relative positions of the principal organs, their influence on one another, and the effects of such influence. Hence they know how to distinguish diseases according to the parts in which they may be seated; they observe the pulse, the colour of the skin, its temperature, the tongue, eyes, &c.; they examine into the condition of the intestinal and urinary secretions, the sweat, appetite, sleep, &c., and then proceed to treat the patient.

After exposure to cold, when the skin is dry, and the pulse quick, they endeavour to promote free perspiration by a particular remedy, the chief ingredient in which is ginger. During the cold season of the year they give, under similar circumstances, the Machdan cabbage, canella, the nux armeuinci mali, and glycyrrhiza; in cases where the pulse is slow, they administer purgatives. Their knowledge of botany and natural history is also very ancient. Their philosophical notions are extremely vague and pedantic, and every new or modern idea is carefully excluded. The young physicians learn their art in the houses of their parents, or in private shops, and then pass to the Medical College in which they are examined and finally receive a privilege to practice. The Chinese physicians seldom vaccinate, and never bleed their patients. Their principal remedies are mineral waters, diet, exercise, shampooing, &c. The most common diseases observed in China are colds, acute fevers, phthisis, icterus, and dysentery; they are excessively subject to pains in the abdomen and bones of the leg, as a consequence of their dissipated life and polygamy. The clerical physicians place great reliance on the state of the pulse, which they feel with the index, middle, and third fingers on both arms. They pretend to judge of the state of the liver by feeling the pulse of the left arm with the index finger: that of the heart with the middle finger; of the kidneys with the fourth finger; they estimate diseases of the lungs by feeling the pulse on the right arm with the middle finger. According to the difference of the pulse, in quickness or slowness, strength, or weakness, they give purgative, refrigerant, exciting, or diaphoretic remedies. They are also guided by the general appearance of the patient, the condition of the stomach, and the nature of his evacuations. Their chief reliance, however, is on the pulse, which they have distinguished into a great variety of species.—*Klein. Repert.* April, 1837, p. 49.

* Dr. Rehmann, for several years physician to the Russian Mission at Pekin.

PETITION AGAINST QUACKS AND PRESCRIBING DRUGGISTS.

THE members of the *Leeds Medical Society* have unanimously determined to petition the Legislature for protection against illegal competition on the part of quacks. They state that in the Borough of Leeds the number of prescribing druggists, and other illegal practitioners *considerably exceeds* that of the regular members of the profession; and that the same calculation is applicable to many other places, the uneducated druggists being now in the full exercise and enjoyment of all those privileges which were intended, by the Act of 1815, to be secured to the apothecaries. The Leeds practitioners earnestly exhort their brethren throughout the kingdom to second their efforts, by *immediately* sending up to Parliament similar petitions. The petition which the Society has drawn up for presentation, after stating the extent of the grievance, its continued increase, the very serious injury to the public health, which results from the proceedings of quacks and other illegal pretenders to medicine, and the unjust effect on the practice of regular members of the profession, more especially the younger practitioners, who generally depend for their subsistence upon the classes who are misled by the advertisements and false statements of those pretenders,—proceeds to point out that "the only protection afforded to regular practitioners is by the Apothecaries' Act, which, however," they add, "is totally inadequate to redress their grievances, on account of the difficulty of obtaining the required evidence of illegal practice, the great length of the legal process, and the heavy amount of costs attending prosecutions." The petitioners, therefore, suggest "That a clause be added to the Apothecaries' Act, empowering magistrates to summon before them any party charged with illegally prescribing or practising any branch of medicine in England or Wales, with power to inflict such a penalty as may seem adequate to prevent a repetition of the offence."

ASSASSINATION OF SMITH, THE COTTON-SPINNER.

*To the Editor of the Constitutional.**

SIR:—Permit me to direct the attention of your readers to the case of Smith, the cotton-spinner, who was assassinated in Clyde-street, Anderston, in July last.

It may not be generally known, that, immediately after the shot was fired at the unfortunate person, he was carried to my house, No. 20, Stobcross-street. I carefully examined the wounds, and was at once convinced that they would prove mortal. I therefore deemed it my duty to consult with my friend, Mr. A. Jackson, and my brother, Dr. Joshua Paterson, who concurred in this opinion. After giving Smith every attention, for nearly two hours, in my consultation room, I procured a noddy and sent him, accompanied by the requisite medical attendants, to the *Royal Infirmary*, where I know he was *not seen by the attending surgeon for nearly fourteen hours afterwards*. Fully aware of the highly responsible situation in which I was placed, I retained his clothes with the gunshot marks, as important proofs of the crime, and had these shortly after placed in the hands of the Procurator-fiscal. Being the medical man who first saw this case, I was applied to by the public authorities, and freely informed them of every circumstance that had come under my observation. Contrary to my own expectation, and that of my medical friends, I was neither legally precognosced, nor called upon to give evidence at the trial which has just taken place.

In submitting this statement, I humbly conceive that I am rendering no unimportant service to my fellow-practitioners, many of whom may, probably, be unaware, as I was until Smith's case occurred, that in giving evidence without being summoned, they will not only not be called into Court, but will also be deprived of the remuneration to which they are justly entitled. Besides, I am of opinion, and I am borne out by the highest authorities in medical jurisprudence, that the result of the trial *might have been different*, had the prisoners' counsel been aware of the above facts—it being in such cases necessary for the public prosecutor to prove that the party received proper attention *from the moment of injury until his death*. Yours respectfully,

CHARLES PATERSON.

Glasgow, 16th Jan., 1838.

*** The fact that Mr. Paterson was not called as a witness, at the trial of the cotton-spinners, appears to us to be perfectly inexplicable. The neglect of the patient at the *Infirmary*, affords a parallel to the recent neglect of James Chaplin, who was removed to the *London University Hospital* after receiving *a wound with a bayonet*, and not seen by the surgeon who *ought* to have been "attending," for nearly the same number of hours.

* This letter was originally printed in the Glasgow "Constitutional," of Jan. 17th, a twice-a-week newspaper, and was forwarded to London for publication in THE LANCET. —ED. L.

POISONING FROM STRYCHNINE.

Cases of poisoning from strychnine do not frequently present themselves; the following case is, therefore, worthy of being placed upon record, for the purpose of serving as a reference on future occasions.

On the 2nd of July a young man, seventeen years of age, who had for a long time suffered under depression of spirits, took a large dose of strychnine (two scruples). No sooner had the first symptoms of poisoning, viz., anxiety and agitation, set in, than he repented him of the deed, and sought for medical assistance. After the lapse of a quarter of an hour a physician came, who immediately administered four grains of tartar emetic, but with the effect of producing only insignificant vomiting. The patient now lay stiff upon his back, with the head somewhat bent backwards; the lower extremities were perfectly stiff; the upper still free; the visage pale and haggard; the pulse quick and contracted; the heat of skin normal; he spoke with a firm voice, and in a collected manner, but trismus was evidently commencing. The attacks of trismus soon became more violent, and the spasms extended to the muscles of the chest; the thorax appeared compressed, and the respiration was unequal and interrupted. Strong doses of emetic, aided by titilating the fauces, produced only very moderate vomiting; tincture of iodine and morphine were also administered without relief. The accesses of trismus and oppression were now repeated, at intervals of a minute, for a short time, when the whole body was attacked with tetanus, becoming as stiff as a board; the suffocation was extreme, the jaws firmly locked together; the upper extremities were firmly flexed at the elbow-joints and applied across the chest; the lower extremities were extended and stiff, the soles of the feet concave.

By degrees the respiration became more unequal, and finally ceased; the heart continued to beat in a disorderly manner, but its pulsations soon became imperceptible; the skin was now of a dusky blue colour, the face deep purple; the eyeballs prominent, the pupils dilated and insensible. As the suffocation became more imminent all signs of consciousness disappeared, and the patient lay, for a few minutes without motion, in a state of the most perfect universal tetanus.

Death was expected to put an end to this distressing scene, when a remission of the convulsions suddenly manifested itself; the limbs became relaxed, and after a long, deep-drawn inspiration the pulsations of the heart and arteries were again perceptible; consciousness, and the power of speech were also restored, but the articulation was imperfect. Efforts to produce vomiting were now repeated, but in vain. A gum elastic catheter was passed through the nostrils into the stomach, a quantity of fluid introduced, and then withdrawn, and some acetate of morphia administered; no relief, however, was obtained. After the lapse of a quarter of an hour the patient was again seized with a shivering fit, followed by general tetanus, which soon terminated in a state of asphyxia; the median vein was immediately opened, but only a few drops of blood could be obtained, and the death of the patient took place an hour and a half after the self-administration of the poison.

Examination twenty hours after Death.

Skin of a dark colour; the face less contracted than during life; pupils not remarkably dilated; body excessively stiff. On opening the vertebral canal two quarts of thick fluid blood escaped. The plexuses of the spinal veins and the pia mater were highly congested, and on removing the membranes, some serum escaped from beneath them. The upper part of the spinal marrow was exceedingly softened; but the lower portion, near the cauda equina, was, on the contrary, hard. The substance of the brain was merely congested, but not altered in any way; the membranes were healthy. The vessels contained in the cavities of the chest and abdomen were highly congested; the mucous membrane lining the mouth and œsophagus was free from inflammation; the stomach was filled with slimy mucus, but did not present any appearance of having undergone organic change.—*Würtemb. Med. Corresp.*, Bd. 7, 1837.

Assurance Office Fees.—We, the undersigned medical practitioners in Devonport and Stonehouse, resolve, that in future we will answer communications made to us by Insurance Companies relative to the health of individuals who may have been under our medical treatment, only on condition that such communications be accompanied by a suitable fee, considering the Insurance Companies are parties benefitted by the information thus obtained.

J. Bone.	J. Lower.
J. Boyle.	J. May.
J. Burrows.	G. Rolston.
J. C. Buxton.	F. Row, M.D.
J. E. Clark.	T. Rutter.
W. Cole.	J. E. Rutter.
T. Crossing.	W. Simpson.
G. Dansey.	E. B. Squire.
G. Glasson, M.D.	P. W. Swain.
T. C. Hancock.	C. Thomas, M.D.
G. F. B. Harrison.	R. Topping.
J. Isbell, M.D.	H. Tracey.
W. J. Isbell.	C. Tripe.
S. Kerswill.	L. P. Tripe.
R. J. Laity.	R. Watson.
D. Little.	W. Welch.

EXPERIMENTS PERFORMED AT THE HOPITAL DE LA PITIE,

IN AUGUST, 1837, BEFORE M. SERRES, MEMBER OF THE INSTITUTE, AND OTHER GENTLEMEN;

By MARSHALL HALL, *M.D., F.R.S., &c.*

THE head of a river tortoise being separated between the third and fourth vertebræ:

Experiment 1.—The lower end of the spinal marrow attached to the head was irritated by means of a probe, acts of *inspiration* were induced.

Exp. 2.—The dorsal portion of the spinal marrow was laid bare to the extent of an inch, below the origin of the brachial nerves; the spinal marrow was excited by means of the probe and by galvanism; both anterior and posterior fins, with the tail, were moved.

Exp. 3.—A lateral intercostal nerve was laid bare, and stimulated in the same manner; the same movements were produced as in Experiment 2.

Exp. 4.—The *cutaneous* and *mucous* surfaces of the *head* were stimulated; the same acts of inspiration were produced as in Experiment 1.

Exp. 5.—The spinal marrow being raised upon a portion of paper, the *posterior* and *anterior* surfaces were subjected to the agency of the galvanic influence, in separate experiments; in the former case slight, in the latter energetic movements were produced, in the four extremities and the tail.

Exp. 6.—On irritating the border of the sphincter ani, very energetic movements were produced in the four extremities and in the tail.

We gladly lay before our readers the account of these experiments, *made at the request* of a Member of the French Institute. What a contrast is afforded by this circumstance with the refusal of the Members of the Council of *our* R. S., to *see* with their own *eyes* similar experiments! *Si nullus pudor est!*—ED, L.

MEDICO-BOTANICAL SOCIETY OF LONDON.—At the anniversary meeting, held on the 16th inst., Earl Stanhope was elected President for the ensuing year; William Henry Judd and Edwin Sanders, Esqs., Honorary Secretaries; Thomas Everitt, Esq., Professor of Chemistry; Charles Johnson, Esq., Professor of Botany; William Tiffin Iliff, Professor of Medical Jurisprudence; and George G. Sigmond, M.D., Professor of Materia Medica. The reports of the different officers of the Society on the state of the funds, of the library, of the museum, and of the herbaria, were read, from which it appears that the objects for which this Institution were founded, begin to be properly appreciated and generally recognised, as deeply important to the progress of medical science.

A VACANCY has occurred in the office of surgeon to *St. Bartholomew's Hospital*, in consequence of the decease of Mr. HENRY EARLE, who was lately one of the medical staff in that institution.

THE LATE PROFESSOR TURNER.—A bust of the late Dr. TURNER, Professor of Chemistry, has been recently erected in *University College*, London, by his pupils, who have taken this means of publicly testifying their respect for his memory, and of paying, in some degree, the debt of gratitude which they owed to their honoured teacher and beloved friend.

TO CORRESPONDENTS.

IT is not necessary, after what has appeared in this Journal on the subject, to publish the honourable testimonial to the professional conduct of Dr. J., forwarded for insertion by *Mr. Pretty*, of Mabledon-place.

Wix. Spears should be light in the head. However, it is better to fill tin boxes with treaties of peace than the implements of diabolical war.

Mr. Davies' letter was mislaid. The Provisional Committee is not in existence, and the document which he desires to have could not be obtained by purchase, at that or any other institution.

A Subscriber. The *Hospital Accident Case Society* seems to be well deserving of support. We have examined the prospectus and recent Report, and find in them many useful suggestions, and some satisfactory and gratifying information respecting the proceedings of the Society.

Has *Mr. Dodds* ever tried the apparatus which he describes, or do his communication and drawing merely embody a suggestion?

The valuable information forwarded by the *Messrs. Prince* shall be added to the fund already in hand, for use, if needed.

A Lic. of the Ed. Coll. The absurdity can only be remedied when the entire fabric of medical law is under renovation.

The facts mentioned by *Dr. Robert D.* (of A. L.), will be brought fully forth in the committee.

BOOK RECEIVED.

On Warming and Ventilating; with directions for making and using the Thermometer-Stove, or Self-regulating Fire, and other New Apparatus. By Neil Arnott, M.D., Phys. Extra. to the Queen. London: Longman, 1838, pp. 138.

ERRATUM.—In Mr. Streeter's paper (LANCET, No. 17, p. 611) for the words "in every 1000 cases of small-pox there were deaths," substitute *out of every* 1000 *deaths from all causes, there were from small-pox, &c.*